

The Fifth Freedom: Access to Postsecondary Education in America Today

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This issue of *American Academic* investigates the current state of access to postsecondary education in America. The importance of this investigation is evident from a fact that was documented with abundant evidence in last year's issue: the benefits of postsecondary education are tangible not only for those who graduate from college but also for the communities in which these college graduates live. In addition to reaping the private benefit of increased personal income, college graduates are less dependent on public assistance and more active in civic activities than their counterparts who did not earn a college degree.¹ Because the benefits of postsecondary education are public as well as private, the nation has a stake in making postsecondary education widely accessible. Nearly four decades ago Lyndon Johnson underscored the importance of public efforts to promote what he called "the fifth freedom"—that is, freedom from ignorance. In a special message to Congress, President Johnson declared this fifth freedom equal in importance to the four freedoms that Franklin Roosevelt had proclaimed to an earlier generation as essential values for which America stands: freedom of worship, freedom of speech, freedom from want, and freedom from fear. To secure freedom from ignorance, said Johnson, requires that every person be able to develop his or her talents "to their full potential, unhampered by arbitrary boundaries of race or birth or income."²

As the contributors to this issue of *American Academic* consider the nation's progress in making postsecondary education accessible, they show that the boundaries have been redrawn but not removed. Although postsecondary education is more accessible to a larger percentage of the population now than at any other time in the nation's history, the same factors that Lyndon Johnson identified—race, birth, income—still play too large a role in determining who is

able to attend college, which college a person is able to attend, and whether a person is able to remain in college until graduation. To explain why the benefits of increased educational opportunity have not extended equally to all segments of American society, the authors identify obstacles—some longstanding and others new—that prevent some qualified students from earning a college degree or limit their access to particular types of institutions. The authors also propose practical strategies for removing or reducing many of the obstacles.

In a study of the obstacles to investing in human capital, Daniel Georgianna and Robert T. Jones examine how the private benefits of education are used to justify cuts in public funding. Because a college degree produces lifelong economic benefits for its holder, some policymakers argue that students and their parents should assume more of the cost of obtaining the degree. State legislators find this reasoning particularly compelling during periods of economic decline, when they are faced with difficult decisions about how to allocate insufficient tax revenues. When legislators reduce allocations for postsecondary education, public colleges raise tuition and fees to cover the shortfall. Georgianna and Jones examine how this pattern of spending cuts and tuition increases has intensified the class structure of postsecondary education by pricing many four-year institutions out of the reach of low-income families. The authors also note an essential flaw in the belief that funding for postsecondary education is an investment in private rather than public good: those who hold this belief ignore the substantial public benefits that accrue from making postsecondary education more accessible. Georgianna and Jones conclude that “a nation cannot prosper in the modern world economically, politically, or socially if most of its children from lower income groups are denied access to the full range of higher education institutions or saddled with debt from exercising their choice.”

The next two articles focus on first-generation college students, a population that merits much more attention from policymakers seeking to expand access to postsecondary education. In the first of these articles, Jennifer Engle identifies the demographic and educational characteristics of students whose parents did not attend college. Although this population includes disproportionately large numbers of students from low-income families and other groups with lower than average levels of college enrollment and completion, Engle cites research

showing that “first-generation status is itself a risk factor,” one that correlates with low rates of postsecondary education even after researchers control for other factors. Engle identifies an array of social and economic obstacles that first-generation students must overcome, and she also identifies programs—including TRIO and GEAR UP—that have succeeded in improving retention and graduation rates for first-generation college students. In the second article on first-generation students, Kevin M. Kniffin considers how a cycle of underrepresentation can be broken by increasing the number of first-generation students who earn graduate degrees and accept faculty and staff positions, enabling them to “contribute to the success of accessibility initiatives for successive generations of students.” Noting that first-generation students are underrepresented at every stage of postsecondary education—from undergraduate admissions to enrollment in graduate programs to hiring and tenure in faculty positions—Kniffin supplements the quantitative data by providing qualitative accounts of the experiences that hinder these students. He then reviews policies that have been proposed to facilitate better representation of first-generation students in the full array of campus roles.

No population in America faces greater obstacles to postsecondary education than undocumented students—the 1.6 million children who possess neither American citizenship nor legal immigrant status. The magnitude of the obstacles becomes clear as Jennifer L. Frum examines regulations that limit the ability of these students to attend public postsecondary institutions, qualify for in-state tuition, and obtain employment commensurate with their level of education. Citing the precedent established by the Supreme Court in 1982, when it ruled in the *Plyler v. Doe* case that denying K-12 education to undocumented children amounted to creating “a lifetime of hardship” for a permanent underclass, Frum notes that a quarter century after *Plyler v. Doe*, a college degree has become a requisite for social mobility. She also considers data concerning the economic and non-economic costs and benefits of measures to improve postsecondary educational opportunities for undocumented students. Noting that the United States faces a deficit of twelve million college-educated workers by 2020, Frum proposes strategies for removing the barriers that prevent undocumented students from earning college degrees and filling essential positions in the American workforce.

As racial barriers have fallen in American education, the percentage of African American students enrolling in historically Black colleges and universities (HBCUs) also has fallen. Nevertheless, as Brian E. Harper makes clear in his article, HBCUs continue to play a crucial role in providing educational opportunities for African Americans. Harper sketches the evolving role of these institutions, and he notes that public support for HBCUs has diminished as the majority of African American students migrate to predominantly White institutions (PWIs). The declining enrollments and loss of tuition dollars also have made public HBCUs more dependent upon state funding—a particularly unfortunate development given that states fund HBCUs at much lower levels than predominantly White institutions. Harper acknowledges that HBCUs are under-funded and under attack from critics who question the academic rigor of these institutions; however, he also offers compelling evidence that HBCUs provide “an affordable and supportive academic and social environment for a wide range of students.” In fact, HBCUs continue to outperform PWIs in their undergraduate graduation rates for African Americans, and these HBCU graduates are more likely than their counterparts from PWIs to engage in community service and to be very satisfied with the jobs they obtain. The numbers suggest that historically Black colleges and universities merit much more support—both public and private—than they currently receive.

Although the cost of postsecondary education is a formidable obstacle for many families, the obstacle seems less daunting to students and parents who have accurate and timely information about financial aid and the process of applying for it. However, as Maria Estela Zarate and David Fabienke show in their article, many Latino families receive this information too late if they receive it at all. Reporting the results of a large-scale survey of Latino students and parents, Zarate and Fabienke note that most of their respondents were not knowledgeable about financial aid but expected that teachers and counselors would provide the information they needed. Of the respondents who were enrolled in college, 59 percent reported that they actually did receive information about financial aid when they were enrolled in kindergarten through twelfth grade. Of the respondents who were eligible for college but were not enrolled, only 41 percent reported receiving information about financial aid during their K-12 years. Zarate and Fabienke’s findings suggest that information about attending college is not

as available to Latino families as it should be, a problem that could be remedied by incorporating information about college in the curriculum for all students in middle school and high school.

When students apply for college admission and financial aid, they quickly discover that the Internet now plays an essential role in both of these application processes. As Kristan M. Venegas shows in the article that concludes this issue of *American Academic*, the shift to online applications is advantageous for affluent students but creates problems for low-income students whose schools and homes have been bypassed by the information superhighway. Although more than 90 percent of schools now have Internet-connected computers that students can use, Venegas's research reveals gross disparities in the access that students have to these computers, in the quality and maintenance of the technology that is available, and in the competence of the counselors who teach students how to use the Internet when applying for college. Venegas also notes that the low-income students who have the least access to the Internet at school are the same students who are least likely to have Internet connections at home: Latinos, African Americans, and Native Americans. Venegas acknowledges that technological advances cannot be put on hold until everyone is able to benefit from them; however, she argues that it is essential to close the digital divide by giving disadvantaged students more access to the Internet and more training in how to use web-based financial aid sites. It also is essential to provide more technological training for college counselors who work in public schools and to free these counselors from other duties so that they can devote all of their work hours to assisting students. High schools that serve disadvantaged students will need additional resources to implement these measures, but colleges and universities should assume more responsibility for providing the necessary access and training.

Viewed collectively, the articles in this issue document a record of considerable progress in making postsecondary education more accessible but less progress in making it equally accessible to all qualified students. Two aspects of these articles are particularly striking: not only do the articles show how "the arbitrary barrier of income" remains in place four decades after Lyndon Johnson committed the nation to dismantling it, they also show how the failure to remove the

income barrier thwarts the nation's progress in removing other arbitrary barriers. Because the low-income population in America includes disproportionately large numbers of students from other populations whose access to postsecondary education is limited, the income barrier is itself a racial barrier, an ethnic barrier, a class barrier and a barrier of birth. So the arbitrary barrier of race still exists for African Americans and Native Americans, whose enrollment and graduation rates lag behind the overall rates for the population.³ The arbitrary barrier of ethnicity still exists for Latino students, whose desire for postsecondary education far exceeds the rate at which they attain it. The arbitrary barrier of class still exists for first-generation students, for whom academe may seem an alien culture. And the arbitrary barrier of birth still exists for undocumented students, many of whom graduate from America's high schools only to discover that their access to further education is barred.

Behind these barriers, buttressing them, are financial policies that raise doubts about the nation's commitment to making postsecondary education accessible to all who can benefit from it. Today, the nation is failing at a task that Lyndon Johnson declared vital: the task of "effectively blend[ing] support to students with support for institutions."⁴ In the new millennium, state-level allocations for postsecondary education have not kept pace with the growth in the population of prospective college students, creating a funding gap that has led public colleges to increase tuition and fees at an unprecedented rate.⁵ Inadequate allocations have hindered efforts to develop or expand necessary programs for at-risk students. At the same time, federal funding for need-based financial aid has not kept pace with the record increases in the cost of attending a four-year college, making postsecondary education less attainable for America's neediest students.⁶ Also, loans have replaced grants as the most common type of financial aid available for postsecondary education, a shift that has increased the debt burden for students from every stratum of American society. And policies concerning eligibility for in-state tuition and federal aid have not kept pace with the shifting demographics of the population, hindering the nation's effort to meet the growing demand for college-educated workers.

Taken together, these developments suggest that America must reaffirm its commitment to postsecondary education. It is essential for the nation to develop a

comprehensive plan of action and commit the resources that will make equal opportunity a reality instead of a goal. To do anything less is to deny a truth that Johnson voiced when he declared the “fifth freedom” a national priority: an investment in postsecondary education for all qualified students is an investment made not just for the individual’s sake but for the sake of the entire nation.

ENDNOTES

¹ Sarah Krichels Goan and Alisa F. Cunningham, “The Investment Payoff: A 50-State Analysis of the Public and Private Benefits of Higher Education,” *American Academic* 2 (2006): 23-24.

² Lyndon Johnson, “The Fifth Freedom,” Special Message to Congress, February 5, 1968, <http://www.presidency.ucsb.edu/ws/index.php?pid=29182>.

³ National Center for Education Statistics, Digest of Education Statistics: 2005, <http://nces.ed.gov/programs/digest/d05/>.

⁴ Johnson, “The Fifth Freedom.”

⁵ College Board, *Trends in College Pricing 2006*, http://www.collegeboard.com/prod_downloads/press/cost06/trends_college_pricing_06.pdf.

⁶ College Board, *Trends in Student Aid 2006*, http://www.collegeboard.com/prod_downloads/press/cost06/trends_aid_06.pdf.

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Privatizing the Benefits from Higher Education and Its Effect on Access

DANIEL GEORGIANNA AND ROBERT T. JONES

Introduction

In his annual reports to the Massachusetts State Legislature, Horace Mann, Secretary of the Massachusetts Board of Education from 1837 to 1848, stressed the importance of public education for the success of the new Republic. In contrast to the private academies, the main high schools of his time, the common schools would offer free education to all, binding a disparate population into well-informed and productive citizens of the greatest nation in history.

Most colleges and universities of his time focused on religious education, which Mann did not consider appropriate for public funding because religious education separated student-citizens rather than uniting them. But there are more than a few hints that Mann, a graduate of non-sectarian Brown University, viewed the budding secular colleges of his time as training students for personal prosperity or leadership, which Mann also didn't regard as worthy of public funding. In one of his annual reports to the Legislature, Mann wrote, "This commonwealth is pledged for the education of all its youth, up to such a point as will save them from poverty and vice, and prepare them for the adequate performance of their social and civil duties."¹

Mann didn't initiate debate over public funding for private benefit. This issue stretched back at least to the Reformation, and was one of the main themes of Adam Smith's *Wealth of Nations*, which informed most of the polemical writing of Mann's day. Smith clearly classified basic education as a public good, which should be paid from public funds, but training of students for the professions should not be paid by the public because "their parents or guardians are generally sufficiently anxious that they should be so accomplished, and are, in the most part, willing enough to lay out the expense which is necessary for that purpose."²

Although arguments for public funding of higher education often changed with the times, access is the most powerful political motivation in recent times. Most of the public sees higher education, especially public higher education, as the opportunity for all people (especially their own children) to reach their potential, which would seem to favor increases in public funding. Potential easily translates into economic earnings, however, usually measured in the difference in earning power between high school and college graduates, a private benefit, eclipsing the public benefits of economic development, public service, and access regardless of income.

Virtually all studies show that the private economic value that results from college education has risen sharply over the past 25 years. Studies also offer conclusive evidence that state spending for higher education has declined in real terms. Federal spending has declined at least relative to the cost of college, and more of this spending has gone to loans rather than to grants.

In this article, we explore the connections between the sharply rising economic returns from college education, regarded as private benefits, and the decline and redirection in public spending, seen as public costs. The public benefits from college education are ignored, even decreased, because the changes in public spending reduce access to higher education for many, diminishing economic development and widening the disparity in income. We examine recent trends in the private benefits of college education, recent trends in public spending for higher education, and the effect of the declining affordability on access to higher education for lower income groups.

Private Returns to Higher Education

There is a widely held position that benefits of a college degree accrue not only to the individual but to the society as well. In his book on the rising costs that families have to pay for college, Ronald Ehrenberg writes, “State governments need to be educated so that they understand the role that higher education plays in economic development and in boosting incomes of state residents.”³ Another school of thought holds that the benefits of a college education are private, that college education improves the earning potential of recipients by increasing the individual’s stock of human capital. In the economics literature, the motivation for funding human capital depends strictly on who receives the benefits. The crucial question in this literature is “Who has the incentive to invest in human capital?”

Gary Becker, the pioneer of the theory of human capital, provided the theoretical foundation for the individual's incentive to invest in human capital, which he argued was similar to investing in physical capital or financial assets.⁴ One will invest if the perceived rate of return on investment is sufficient; the investment in human capital makes sense if the expected discounted future income associated with increasing the stock of human capital is greater than the cost of producing the human capital. Specific skills and training of workers become assets to the firm, but similar to decisions to invest in other forms of capital, firms will only invest in human capital if sufficient returns are specific to the firm. This would tend to increase firms' investment in specific skills but not their investment in the general development of human capital that benefits the individual. As the recent trends in higher education finance show, individuals bear an increasing share of the cost of college degrees and firms increasingly finance specific training and education.

Becker gives several other reasons why students and their parents may not invest in human capital even if the net return to society is positive. There may not be enough time to recoup the costs of investment. The young have a greater incentive to invest in human capital because they have longer to collect the cost of education and training. This incentive to invest is tempered however by some other factors all investors must consider. First, while a longer time horizon allows more time to recoup costs, it also creates risk because payments far in the future are worth considerably less now due to discounting. Will the degree earned be in demand in the future? Will it pay less or more in the future? How quickly does the state of technology change? Will inflation reduce the present value of future returns below the current costs?

In addition, access to and knowledge of credit markets affect the investment decision. Seeking a college degree may be prohibitively expensive due to the size of the investment that consists of the direct cost for attending college and the opportunity cost due to the loss of earnings from the time spent in school. Becker argues that the latter is substantial and depends on wages and opportunities for high school graduates. Banks and other lenders may not be willing to finance these costs, especially lost wages, because they have little or no legal claim on the future returns to human capital. Internal or family financing must make up the difference in funding due to these capital market limitations. As a result, affluent families are more likely to invest in human capital than less affluent

ones. This practice leads to increasingly skewed distributions of skill and income and to losses in the productivity of the workforce due to the lack of training and education.

A significant body of recent studies has documented the wage premium to college-educated workers. These studies focus on the supply and demand for college graduates, including two-year college graduates and students that attended some college, and the supply and demand for high school graduates.

Katz and Murphy used data from the March Current Population Survey for years 1964-1988, and a simple model of supply and demand in labor markets, to examine the relative changes in wages.⁵ Katz and Murphy found that, during the 1960s, the wage differential between high school and college graduates increased by about 8 percent. During the 1970s the real wages of college graduates decreased by about 10 percent due mainly to increased supply of college graduates when the baby boom cohorts entered the market, while real wages of high school graduates increased, especially for higher skilled workers without a college degree. However, from 1979 to 1987 the wage differential between college graduates and high school dropouts increased by more than 14 percent and the wage differential between college graduates and high school graduates increased by almost 12 percent, due mainly to an increase in the demand for college graduates. Katz and Murphy also found significant age cohort differences. They found that young workers enjoyed a much larger college premium than did older workers. In 1987 the ratio of college to high school graduate wages was 1.82 for new college graduates. This was consistent for both men and women.

Card and Lemieux used samples of working-aged men from the United States, Canada, and the United Kingdom to estimate the wage premium.⁶ Because they focused on the returns that college degrees produce for specific age groups, they divided the data into five-year birth cohorts from 1959-1996. They found the same fluctuations in the high school-college wage gap reported by Katz and Murphy. In addition they found that during the early 1990s the wage premium for new college graduates grew even more relative to the older cohorts.⁷ Workers in all three countries enjoyed a rise in returns from college during the 1980s and 1990s that the authors attribute “to the labor market entry of cohorts with permanently higher returns to college,” and not an increase for all age cohorts.⁸ Card and Lemieux concluded that the increase in the

college premium over the period was due to increasing demand for college-educated labor.

Recent data also show that the wage premium is increasing. *Indicator 22: Annual Earnings of Young Adults from the Condition of Education 2006* used data from the Census Bureau to estimate the differences between full-time wage earning of adults between 25 and 34 years of age.⁹ The authors estimate the ratio of median annual earnings of full-time employees in the age group with various levels of education to those with a high school diploma or equivalent. In 1980, for the total population, the median wage earner with a college degree earned 26 percent more than a high school graduate. By 2004 the differential had increased to almost 70 percent. Controlling for gender the authors found that in 1980 female wage earners with bachelor degrees or higher earned 34 percent more than females with less than a high school diploma. In 2004 females with degrees earned 68 percent more than females without a high school diploma. For males the magnitude of the increase was even greater. The difference increased from 19 percent in 1980 to 67 percent in 2004. This increase in the wage premium was due both to an increase in real wages for college graduates and a decrease in real wages for high school graduates.

Recent studies of human capital present evidence that the public returns from funding education are, on the margin, less than the public expenditures on education. Vedder used data from the U.S. Bureau of the Census to estimate the impact of public spending for higher education on the variation in interstate economic growth.¹⁰ He found that both higher levels of spending and increases in spending were negatively correlated with economic growth. One explanation Vedder suggests is that the productivity of education dollars fell due to increased spending on non-faculty positions, especially administrative positions that likely contributed little to the development of human capital. Vedder suggests that the transfer in these non-human capital-producing expenditures from other purposes decreases or eliminates any public benefit to be gained through public support of higher education.

State and Federal Spending on Higher Education

Since the granting of royal charters in colonial America, public funding for higher education has followed many twists and turns along several axes of political motivation, including religious and social improvement, economic devel-

opment, political support, and equity in the form of access for less advantaged groups.¹¹ The earliest public funding for higher education was motivated by religious sentiment, supplying clergy to the colonists. Almost all of this funding came from state revenues, in some cases from dedicated tax sources.¹²

Harvard College, founded in 1639 with a private grant from John Harvard, received financial support from the Massachusetts state government until 1823.¹³ Other colonial state governments dedicated taxes on corn, tobacco, road and bridge tolls, and even sales taxes to their local colleges, usually for education of the clergy. After the Revolution, public funding for higher education was sporadic, dependent mostly on state legislatures, and usually driven by religious motivation, and in Massachusetts and a few other states, training for teachers.¹⁴ Public policy shifted to economic development with the passage in 1862 of the federal Morrill Act that provided the receipts from federal land as long-term funding for state colleges and universities. These land grant colleges focused on the useful arts of agriculture and mechanics, typified by the A&M state colleges. In Massachusetts, land grant funds were used to found Massachusetts College of Agriculture, which became University of Massachusetts, and to supplement funding for Massachusetts Institute of Technology, founded in 1861 as a private school.

After the Morrill Act, public funding shifted back to the states, driven by economic development including the spread of state-funded normal schools for training teachers and state and local funding for specific industrial training in areas such as textiles, other manufacturing, and mining.

With the passage of the federal Servicemen's Readjustment Act (the GI Bill) in 1944, public funding for higher education shifted from institutions to individuals in the form of entitlements for national service. As with the New Deal programs ten years earlier, economic development (derived from economic models based on consumer spending), fear of post-war unemployment, and political support for the Democratic Party led to payments to individuals rather than grants to institutions. Equity as wider access to higher education also played a role, over the opposition of many college and university leaders.

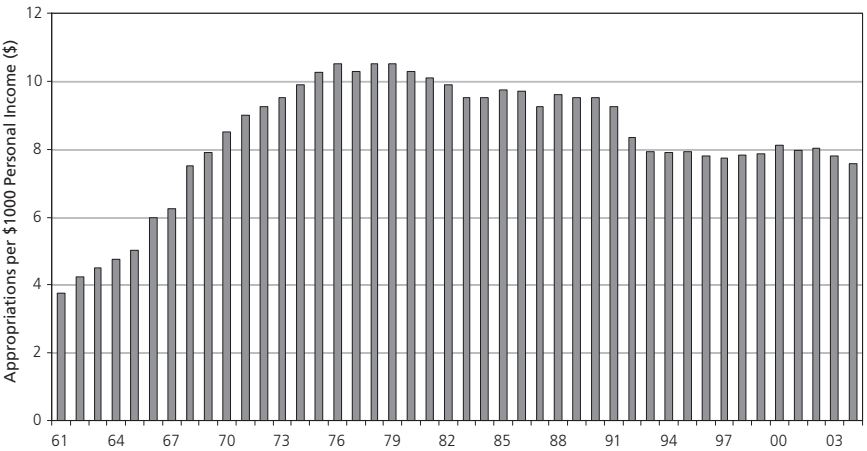
The boom in public spending for higher education during the 1960s and 1970s went far beyond a new GI Bill for Vietnam War-era veterans and was based on public support for economic development and equity. States followed the

long-term example of California in its commitment to no-cost or low-cost for its public higher education students as state after state built state and community college systems and greatly expanded direct appropriations or dedicated sales and other taxes to public higher education institutions. Federal funding focused on direct payments to students in the form of need-based grants such as the Basic Educational Opportunity Grants (later renamed Pell Grants) in 1972, College Work Study in 1964, and the Supplementary Educational Opportunity Grants in 1992. Fueled by the Civil Rights movement, much of the gains went to less advantaged students, creating a middle-class backlash that led to grant and especially federally subsidized loan programs for all.¹⁵

During the 1980s and 1990s, state appropriations followed the business cycle, falling during declines in state revenues and recovering when revenues increased, but the recoveries never returned to the previous highs as state appropriations ratcheted down to levels last reached in the late 1960s.

Figure 1 shows state spending per \$1,000 of personal income in the United States for higher education between 1961 and 2004. State spending increased sharply from 1961 to the late 1970s, peaking between \$10 and \$11 per \$1,000,

FIGURE 1: State spending for operating expenses of higher education per \$1000 of personal income



SOURCE: Zurretta and Archibald

and then started a decline in steps to the present, around \$7 per \$1,000. A large range between states is embedded in these averages, from \$17 per \$1,000 for Wyoming in 2004 to \$3 per \$1,000 for New Hampshire.

During the recent period, the focus of federal aid programs shifted from grants to loans. By 1984, student loans were almost 50 percent of all student aid, up sharply from 20 percent in 1975.¹⁶ In 2003-2004, grants had fallen to 38 percent of all student aid, while loans had risen to 56 percent of all student aid.¹⁷ Over the past 10 years, grant funding has increased by 64 percent per full-time student, while loans increased by 111 percent (both in real terms). While the increase in the cost of college was about the same as the increase in grant funding (except for community colleges where costs rose less than state appropriations), the ability of lower income families to pay for college declined because median income actually decreased for these families in real terms.¹⁸

Privatizing the Benefits from Higher Education

If a college education is so valuable, why has public spending for higher education fallen relative to its cost? We argue that the focus on the private benefits from higher education removes it from the public sphere and therefore eliminates the reason for public funding. The strands of our argument are these: the value of a college degree focuses on higher education as an asset, human capital that delivers a stream of income over the lifetime of its owner, the graduate. The returns of a college degree are carefully calculated in the economic literature and shown to compare favorably with other assets. These returns have been rising over the recent period. Therefore a college degree makes economic sense in the world of private investment, which leads to credit markets. Just as businesses borrow to invest in plant and equipment in order to increase their profits, students and their parents should borrow to finance higher education in order to increase their lifetime earnings.

Banks and other lenders are very selective in supplying funds to college students, however, because they do not regard human capital as collateral; unlike other forms of capital, banks can't foreclose on human capital. Legislators, informed by the political economy of college as a private investment, view public spending for higher education as constituent service to public colleges and universities and to parents of public higher education students. Legislators may be receptive to arguments that public colleges and universities drive economic

development, but many other industries make the same argument. During economic declines or even moderate growth, state legislators, faced with falling tax revenues (often due to tax revolts) and increasing state commitments, cut state spending for higher education. Colleges and universities raise tuition and fees to cover the shortfall, with seemingly little effect on enrollments, and state legislators see little reason to increase funding for higher education when tax revenues increase during the economic recovery.

In this section we will focus on state spending because state spending on higher education outweighs federal spending by 4 to 1, but the same logic based on private returns from higher education as private investment leads to federal funding for higher education in the form of loans rather than grants.

Much of the economic literature on recent trends in state government finance focuses on the tax revolt that began in the 1970s. In an environment of moderate or declining economic growth and increasing entitlement costs, tax cuts directly led to spending cuts in at least some areas. There is little doubt that the political strategy of “starving the beast” proved successful in reducing state and local government spending. Almost half of the states now have tax and expenditure limits on state taxes, and many states limit local spending.¹⁹ Many states also have super majority requirements for overriding these tax limitations. At least one study shows that tax and expenditure limits significantly reduced spending on public higher education.²⁰

Even states without tax limit legislation reduced spending on higher education. Virtually all states have the same shape profile as shown in Figure 1, a rise in state spending for higher education to some peak in the late 1970s or early 1980s followed by a gradual decline of 25 to 30 percent to the present. Most commentators and economic studies argued that Medicaid (due to federal matching requirements) and other priorities such as prisons replaced higher education spending throughout the business cycle.²¹ The general pattern is a decline in higher education spending during an economic downturn with no increase in spending during the following recovery.

There is little doubt that tax limitation has reduced state spending on public higher education, but it is far more difficult to connect perceptions of the private benefits from higher education to legislative action to cut appropriations for state

colleges and universities. Most analyses of reduced state spending on higher education argue that state legislatures reduced funding on higher education during cyclical downturns because state colleges and universities had other sources of revenue, namely tuition and fees. This translates in economic terminology to little need or justification for public support when students and their parents are willing to pay more because the returns on investment are so high.

There is other evidence that choosing to cut higher education spending is due to the rhetoric of private benefit from investment in a college degree. Studies of state spending have shown that state governments treated K-12 spending differently from higher education. While state spending on higher education per \$1,000 of income dropped by 25 percent between 1980 and 2004, state spending on K-12 per \$1,000 of income increased by about 10 percent over the same period.²² This is consistent with Horace Mann's characterization of K-12 education as a public good and higher education as a private good.

Effects on Access to Higher Education

Students considering college have plenty of choices in the United States: a wide array of private colleges and universities and an equally wide array of public state colleges, community colleges, and universities. These choices are limited by students' ability to learn as measured by grades, test scores, and recommendations and by students' ability to pay, which depends upon tuition, student aid, and family income. While there is strong evidence that public spending affects students' ability to learn before and during college, in this section we will consider only the effects of public spending on the ability to pay, in some cases with specific reference to the perceived privatization of benefits from higher education.

The transmission of declines in public spending on higher education to declining ability of disadvantaged groups to pay depends upon the source of public spending. The decline in direct state appropriations relative to the cost of higher education is transmitted to declining access and choice of institution through increases in tuition and fees. The decline in direct student aid to disadvantaged groups relative to increases in tuition restricts their ability to pay for these tuition increases.

There is little doubt that cuts in state spending led state colleges and universities to increase tuition. The share of operating costs paid by families declined until

the late 1970s and then increased as both private and public four-year colleges and universities adopted a business model based on attracting students who were able to pay the bills. By 1993, in order to cover the cuts in state spending, families were paying the same share of operating costs that they had paid in the early 1960s.²³ State flagship universities increased their tuition and fees more than other public higher education institutions. For every year between 1984 and 2000, tuition at state flagship universities increased by more than double the increase in the Consumer Price Index.²⁴ The increase in tuition and fees (in constant dollars) has been much higher for four-year public schools than for two-year public schools, especially from 1992 to 2005.²⁵ While the increases are less in two-year public schools than at four-year schools, the increases are still substantial, over \$1,000 per year in 2005 dollars, a far cry from no tuition or the very low tuition promised only a few years ago, and these institutions supply little student aid from their own revenues.

State flagship universities typically claim that they match high tuition with high financial aid, or in other words set aside large shares of tuition increases for financial aid to low-income students. These statements sound good, describing equity transfers that shift funds from those able to pay higher tuition to those unable to pay. There is some evidence that institutional aid increased over the recent period, but there is less evidence that funds were transferred from high-income students to low-income students. An increasing share of aid supplied by public universities and four-year colleges is now merit-based rather than need-based. Over the past decade, need-based aid has fallen from 80 percent of all aid to less than 60 percent.²⁶ Tuition tax breaks, informed by the rhetoric of private investment in human capital similar to investment tax credits, also favor middle- and high-income families. In 1993, families with annual income more than \$50,000 (31 percent of all families) received 43 percent of education tax credits and 70 percent of federal tuition tax deductions.²⁷

The pattern of cuts in state spending and the resultant increases in tuition have intensified the class structure of U.S. colleges and universities.²⁸ In both 1980 and 1994, more than half of the richest students attended private colleges and universities, while more than half of the lowest income students attended community colleges. Between the two periods, however, both private and public universities attracted more of the richest students, and more middle-income students attended public and private four-year colleges. Fewer high- and middle-income

students attended community colleges in later years, as low-income students were increasingly concentrated in community colleges. This seems to be the result of a business strategy by public and private four-year colleges using financial aid to attract middle-income students who can pay more. A fixed amount of financial aid can be spread across more middle- and upper-income students than across lower-income students who need more financial aid. Lower-income students, denied sufficient financial aid to attend four-year colleges and universities, choose community colleges because that is all they can afford.

While federal, state, and institutional grants have increased, they haven't increased enough to cover the increasing cost of college, which leaves the remainder to be paid from family savings and current income. Lower-income students, therefore, rely more heavily on government loans because neither they nor their parents can afford to pay tuition and other costs.²⁹

Public Support for Public Funding

We offer a hypothesis with some evidence that the benefits from public higher education have been privatized, leading state governments to cut spending on higher education (usually measured relative to state income), and the federal government to favor loans over grants.³⁰ The greater the private benefit, measured by the additional earnings due to higher education, the less important is public funding of higher education. Reduced public funding for higher education affects access to higher education for low income groups in two ways: declines in state funding have caused public four-year colleges and universities to raise tuition without sufficient increases in financial aid, and the increasing emphasis on merit-based aid and tax credits and federal spending on loans vs. grants has increased the debt load that low-income students carry forward.

In an era of slipping state funding, state colleges and universities have switched from a financial model of low tuition and low financial aid to high tuition and high financial aid. There are three problems with this approach. The first problem is that high financial aid looks more like retail discounting of tuition in order to charge what the market will bear than financial aid to improve access, as discussed above.³¹ The second problem with this strategy is that financial aid in college comes too late for many low-income students who have suffered through twelve years of inadequate funding. Money matters in education, especially in the early years. That's why high-income families pay so much for education.

The third problem is that high tuition and high financial aid weaken the political coalition for public funding for higher education. Parents and students paying high tuition see little reason to push state leaders for more state funding for higher education. Even if they understand the connection between funding cuts and high tuition, they know that schools will not decrease tuition and fees. Choosing a college has become shopping for the best deal. At least some parents and students paying high tuition are likely to view state appropriations to state colleges and universities as undeserved handouts. Voters without children in state colleges and universities, about 90 percent of all households, are likely to view state spending for higher education as picking their pockets.

Goan and Cunningham show evidence that college education provides public benefits and therefore merits public funding. College graduates, including those with associate degrees, are far less likely to be unemployed and require public assistance than high school graduates. They also are in better health. They vote more and volunteer more for public service.³² More importantly, a nation cannot prosper in the modern world economically, politically, or socially if most of its children from lower-income groups are denied access to the full range of higher education institutions or saddled with debt from exercising their choice.

ENDNOTES

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Postsecondary Access and Success for First-Generation College Students

JENNIFER ENGLE

Introduction

A college education is considered the key to achieving economic success and social mobility in American society. Higher levels of educational attainment are related to higher incomes and lower rates of unemployment, and the earnings gap between high school and college graduates only widens over time.¹ While access to higher education has expanded dramatically in recent years, students whose parents did not go to college remain at a distinct disadvantage. First-generation college students, most of whom come from low-income and minority backgrounds, face a number of challenges—from poor academic preparation to inadequate finances to a lack of support from peers or family members—that make it more difficult for them not only to get into college but also to get through it. This article will review recent research on first-generation college students, focusing on the demographic and educational characteristics of this population, the factors that affect their access to and success in college, and the interventions targeted toward better serving their needs in postsecondary education.

Characteristics of First-Generation College Students

First-generation students—students whose parents have not attended college and/or have not earned a college degree—differ from their peers in ways that reduce the likelihood that they will attend and succeed in college. First-generation students are disproportionately overrepresented in the most disadvantaged groups relative to participation in higher education.² Demographically, first-generation students are more likely to be female, older, Black or Hispanic, have dependent children, and come from low-income families than students whose parents have college degrees. All of these characteristics are independently associated with lower rates of college attendance and degree attainment, they are all interrelated, and they intersect with first-generation status to limit postsecondary opportunities and outcomes for students whose parents did not go to

college.³ The enrollment characteristics of first-generation students who do matriculate to college reflect the social and economic challenges associated with their demographic characteristics. Research has shown that first-generation college students are more likely to delay entry into postsecondary education, to begin college at two-year institutions, to commute to campus, to take classes part-time and discontinuously while working full-time, and to need remedial coursework—all characteristics that put students at risk for dropping out of college without earning a degree, particularly the bachelor's degree.⁴ The demographic and enrollment characteristics of first-generation students combine to create conditions that lower the chances that these students will go to and graduate from college. However, research has shown that first-generation status is itself a risk factor, even after controlling for students' demographic backgrounds, academic preparation, enrollment characteristics, and academic performance in college, that limits postsecondary access and success for this population.⁵

Students whose parents have no college experience are much less likely to go to college, especially a four-year college or university, than their peers. According to data from the National Education Longitudinal Study (NELS:88), less than half (47 percent) of students whose parents did not go to college enrolled in any postsecondary institution the year after graduating from high school compared to 85 percent of students whose parents had college degrees.⁶ The majority of first-generation students who do attend college enroll in the two-year sector or below. In the NELS:88 cohort of 1992 high school graduates, 56 percent of first-generation students who did enroll in postsecondary education within two years attended a two-year institution or less compared to 23 percent of students whose parents had college degrees.⁷ According to data from the 1995-1996 Beginning Postsecondary Study, 47 percent of all entering postsecondary students were first-generation. First-generation students were overrepresented among entering students at less-than-two-year and two-year institutions, where they made up 73 percent and 53 percent of the population respectively, and they were underrepresented at four-year institutions, where they made up 34 percent of the entering student population.⁸

First-generation students are not only less likely to attend college, they are also less likely to persist to degree. As reported in Chen's (2005) recent research using data from NELS Postsecondary Education Transcript Study,⁹ first-generation students who attended any postsecondary institution (two- or

four-year) were twice as likely to leave without earning a degree compared to students whose parents had college degrees, 43 to 20 percent respectively. Even among students who expected to earn bachelor's degrees and attended four-year institutions, first-generation students were much more likely to leave (29 versus 13 percent) and much less likely to earn a degree (47 versus 78 percent) than students whose parents had a college degree. This gap remained even after taking a number of related demographic and educational factors into account. Overall, only 24 percent of first-generation students who graduated from high school in 1992 and enrolled in college earned a bachelor's degree by the year 2000 compared to 68 percent of students whose parents went to college.¹⁰ The findings from the recent NELS study are consistent with previous research which has found that first-generation college students are at a disadvantage relative to their peers with regards to persistence, especially during the crucial first year of enrollment, and degree attainment even after controlling for related factors.¹¹

First-generation college students remain at a disadvantage relative to their peers even after earning a college degree, at least with respect to graduate school enrollment. Research has shown that first-generation students who earn a bachelor's degree are less likely to continue on to graduate school overall, and less likely to enroll in first-professional and doctoral degree programs in particular.¹² These gaps exist even after controlling for other demographic, educational, and economic factors related to graduate school enrollment.¹³ Labor market outcomes right after college are generally similar, though, for first-generation students and their peers. First-generation college students are as likely to be employed, to be employed in similar fields, and to make comparable salaries as their peers during the first few years after college.¹⁴ However, it is likely that gaps in income and occupational status could emerge in subsequent years given the lower rates of graduate school attendance among first-generation students.

To paraphrase Choy (2001), first-generation students' access to and success in higher education is related to their parents' educational level, but increasing postsecondary opportunity for these students by changing the level of their parents' education is not practical (although it would represent a novel approach to the problem). However, as she continues, we can examine how parents' level of education is related to other factors that we know affect whether and how

students successfully get into and through college, and in doing so, gain insights into how to help mitigate the effects of first-generation status as a risk factor for this population.¹⁵

Factors that Affect Access to College

There are a number of factors that have been shown to negatively affect the college-going chances of students whose parents did not complete any education beyond high school, including lower levels of academic preparation, lower educational aspirations, less encouragement and support to attend college, particularly from parents, less knowledge about the college application process, and fewer resources to pay for college. In combination, these factors reduce the chances that first-generation students will “choose” to go to college at all as well as limit the types of colleges (i.e. location, sector, and selectivity) that first-generation students consider attending, which can ultimately affect their chances of graduating with a degree.

Academic Preparation for College

Students whose parents did not go to college are considerably less likely to be prepared to gain admission to college than their peers whose parents have college experience. Among the 1992 high school graduates in NELS:88, nearly half of first-generation students were marginally or not qualified for admission to a four-year institution.¹⁶ However, first-generation students are still less likely to enroll in college, even if they are academically qualified for admission. According to data from NELS:88, nearly 25 percent of academically qualified first-generation students did not enroll in any postsecondary institution (two- or four-year) within two years after high school compared to less than 5 percent of students whose parents had college degrees.¹⁷ A rigorous high school curriculum, particularly one that includes advanced math, can greatly improve the chances that first-generation students will go to college. Horn and Nunez (2000) found that taking advanced math courses in high school more than doubles the chances that first-generation students will enroll in a four-year college, which narrows, although does not eliminate, the gap in college attendance with peers whose parents went to college.¹⁸

The rigor of high school courses taken by first-generation students is affected by a number of factors. According to Horn and Nunez (2000), first-generation students are much less likely than their peers to take eighth-grade algebra, a

“gateway course” to advanced high school math, even when they are qualified to take it. One of the factors affecting whether first-generation students take algebra is availability; more than one-fifth of first-generation students report that algebra was not offered by their school in eighth grade. Parental encouragement and involvement are also significant factors. Given the lack of experience with the college-going process in their families, it is not unexpected that first-generation students report that their parents are less likely to encourage them to take algebra in eighth grade as well as less likely to be involved in helping students choose their high school courses. However, as Horn and Nunez (2000) report, increased levels of parental involvement increase the likelihood that students will take a rigorous high school curriculum and the likelihood they will enroll in college, even after controlling for level of parental education. Therefore, as they suggest, it is possible that outreach to first-generation students and their parents with information about the importance of taking advanced coursework, especially in math, could improve the rates of college preparation and enrollment for this population.

Aspirations for College

First-generation students have lower expectations about the highest level of education they will receive by as early as the eighth grade.¹⁹ According to data from NELS:88, only one percent of eighth graders whose parents had college degrees said they did not expect to go to college compared to 16 percent of students whose parents had no college experience. By the twelfth grade, though, over 90 percent of all students, including those whose parents had not gone to college, expect to go to college. However, only about half (53 percent) of first-generation students expect to earn a bachelor’s degree compared to nearly 90 percent of students whose parents have earned a college degree. Other studies have also found that first-generation students tend to have lower degree aspirations than their peers.²⁰ Furthermore, first-generation students are less likely than their peers to plan to enroll in college immediately after high school, 68 percent to 91 percent respectively.²¹ Delaying enrollment in postsecondary education not only reduces the chances that students will ever go to college, but also reduces their chances of persisting in college to graduation.²²

Students’ aspirations for attending college are greatly affected by the amount of encouragement and support received from significant people in their lives, including teachers and counselors.²³ Research has shown that the level of encour-

agement to go to and prepare for college received from school staff is greater for students with higher levels of academic performance.²⁴ Given generally lower levels of academic achievement among first-generation students, it is likely that this population receives less encouragement and support from teachers and counselors to attend college.²⁵ However, it should be noted that even first-generation students who are academically qualified for admission to college are less likely to expect to enroll in postsecondary education and to earn a bachelor's degree.²⁶

Encouragement and support from parents also greatly affects students' college-going plans. In fact, Hossler and his colleagues (1999) found that strong encouragement and support from parents is the most significant factor affecting whether students aspire to and enroll in college, regardless of parents' level of education. In the Hossler study, parental encouragement was defined as the frequency with which students talk to their parents about going to college while parental support was defined by the extent to which parents get involved in the college-going process from attending financial aid workshops to going on college visits to establishing a college savings account. Unfortunately, first-generation students tend to report receiving less such encouragement and support from their parents to go to and prepare for college than students whose parents have college degrees.²⁷ Some first-generation students also report being discouraged from attending college by family members.²⁸ The lower levels of parental encouragement and support reported by first-generation students are the result of a number of factors. The parents of first-generation students, many of whom are low-income, may expect their children to work after high school, rather than go to college, in order to contribute financially to the family.²⁹ Due to their own lack of experience with postsecondary education, these students' parents may not be aware of the social and economic benefits of college attendance³⁰, and thus, may think that going to college is not important.³¹ The parents of first-generation students may also lack pertinent information or have misperceptions about the college-going process, particularly about college costs and financial aid, which may lead them to discourage their children from pursuing postsecondary education.³²

Planning for College

According to Hossler et al (1999), "Parents who have gone to college are familiar with the experience and are better equipped to explain to their children how

the college system is structured, how it works, and how students can prepare for it.”³³ In the words of Bourdieu (1977) and Coleman (1988), students of college-educated parents have greater access to the forms of cultural and social capital that facilitate access to educational and economic opportunities in our society. Recent research has shown that first-generation students and their parents often lack important “college knowledge” about the process of preparing, applying, and paying for college due to the lack of experience with postsecondary education in their families.³⁴ For example, more than two-thirds of parents with no college experience could not estimate the cost of one year of college compared to only about one-fourth of parents with college degrees.³⁵ College knowledge is particularly low among economically disadvantaged, minority parents, especially Latino immigrants for whom language presents a significant barrier to acquiring it.³⁶ Lack of access to the internet—the now preferred medium by which colleges communicate with potential students and their parents and by which students apply for federal financial aid—also represents a major informational barrier for these populations.³⁷

Parental involvement in the college planning process greatly increases students’ chances of going to college, regardless of parents’ level of education.³⁸ Given the lack of prior knowledge as well as access to information about college available to first-generation students and their families, it is not surprising that students from this population are more likely to report that they do not get help from their parents during the college planning and application process. According to Horn and Nunez (2000), students whose parents did not go to college are less likely to discuss preparation for college entrance examinations or their plans to go to college with their parents than students whose parents have college degrees. Parents without college degrees are also less likely to attend information sessions on college, seek out financial aid information, or go on college visits. It is cause for concern, however, that students whose parents did not go to college are no more likely to report receiving help with applying to college from their schools.³⁹ This is due in part to the fact that schools that serve large populations of first-generation students, many of whom come from low-income and minority backgrounds, do not have the resources (i.e. low student-counselor ratios) to perform well in that capacity.⁴⁰ Furthermore, parents with low levels of education, and concomitantly low income and occupational status, often cannot take advantage of the resources that schools do offer (i.e. parent-teacher conferences, college nights) due to demanding work sched-

ules.⁴¹ Thus, the students and parents who are most in need of more college knowledge are the least likely to get it.⁴²

Students whose parents did not go to college are, as a result, less likely to complete the necessary steps toward enrolling in college, especially a four-year institution, even if they are college-qualified and have aspirations to attend college.⁴³ Among qualified high school graduates, more than 20 percent of students whose parents had no college experience neither took a college entrance exam (i.e. ACT or SAT) nor applied to a four-year institution compared to only four percent of students whose parents had college degrees.⁴⁴ However, as Berkner and Chavez and others have found, the chances that students from disadvantaged backgrounds will take the necessary steps to apply to and eventually enroll in a four-year institution are considerably higher if they have received guidance on the college admissions process, particularly if they have received information about financial aid.⁴⁵

Choosing College

As the research here has shown, lower levels of educational aspirations, academic achievement, and support combine with the risks associated with first-generation status to reduce the chances that students whose parents did not go to college will themselves choose to go. First-generation status has also been shown to limit the types of colleges that students from this population consider choosing to attend in terms of location, sector, and selectivity. First-generation college students are much more likely to enroll in less selective two-year and four-year institutions, even when they are qualified for admission to more selective institutions.⁴⁶ This is due to a number of factors, primarily related to cost and location. Berkner and Chavez (1997) found that first-generation students and their parents were more likely to be very concerned about college costs and the availability of financial aid than their peers. According to Nunez and Cuccaro-Alamin (1998), first-generation students were more likely to cite obtaining financial aid, finishing in a short period of time, and being able to work while attending school as very important reasons for choosing their postsecondary institutions. They also found that first-generation students were more likely to choose institutions that were close to and allowed them to live at home.⁴⁷ While two-year institutions serve an important function, particularly with regards to improving access for disadvantaged populations,⁴⁸ these findings suggest that first-generation students may not be fully aware or able

to take advantage (i.e. pay) of the full range of options available to them.⁴⁹ In fact, Pratt and Skaggs (1989) found that first-generation students were more likely to have applied to only one institution.⁵⁰ Furthermore, the decision to attend a less selective two- and four-year college or university can have a negative effect on a student's chances of earning a degree, particularly a bachelor's degree, given lower graduation rates at these institutions even after controlling for entering student characteristics.⁵¹ Therefore, it is not only of concern whether first-generation students go to college but where they go to college as well.

Factors that Affect Success in College

While students whose parents have a college education tend to experience “college as a continuation” of their academic and social experiences in high school, going to college often constitutes a “disjunction” in the lives of first-generation students and their families. As a result, first-generation students have to make much more complex academic, social, and cultural transitions to college life, especially during the crucial first year.⁵² According to Pascarella and his colleagues (2003), “being a first-generation student confers its greatest liability in [the] initial adjustment to, and survival in, postsecondary education.”⁵³ Thus, whether and how first-generation students can navigate these transitions, particularly during their initial adjustment to college, has an effect on whether or not they can be successful in college and persist to graduation.

Academic and Social Integration

First-generation college students tend to be less prepared academically when they enter college than their peers. Research has shown that they are less likely to take a rigorous high school curriculum, including Advanced Placement courses, and they generally have lower scores on college entrance examinations such as the SAT or ACT.⁵⁴ Terenzini and his colleagues (1996) found that first-generation students enter college with weaker cognitive skills in reading, math, and critical thinking. First-generation students also often lack important study and time management skills and they experience more difficulty navigating the bureaucratic aspects of academic life (i.e. registering for classes, meeting with advisors, choosing a major) due to the lack of college-going experience in their families.⁵⁵ Furthermore, first-generation students have less confidence in their abilities to succeed in college, even when they have the same level of high school preparation and achievement as their peers whose parents went to college.⁵⁶

It should be noted, however, that first-generation students are still less likely to experience success in college, especially during the first year, even after controlling for prior academic preparation and performance.⁵⁷ First-generation students complete fewer credit hours and have lower grades; they are also more likely to withdraw from or repeat courses and to take remedial coursework even if they have the same level of preparation (i.e. rigor of high school curriculum and college entrance examination scores) as their peers.⁵⁸ Thus, as Tinto suggests (1993), the lower performance and persistence rates of first-generation students are more likely attributable to the experiences they have during college rather than the experiences they have before they enroll.

Recent research has shown that first-generation students are less likely to be engaged in the academic and social experiences associated with success in college, often referred to as academic and social integration in the literature.⁵⁹ In terms of academic integration, first-generation students spend less time studying and less time interacting with faculty (i.e. in advising sessions) and other students (i.e. in study groups) about academics both in and out of the classroom. They are also less likely to use student support services on campus.⁶⁰ In terms of social integration, first-generation students are less likely to socialize with faculty or students outside of class, less likely to develop close friendships with other students, and less likely to participate in extracurricular activities (i.e. academic or social clubs) on campus.⁶¹ Terenzini and his colleagues (1994) found that first-generation students tend to delay participation in extracurricular activities and campus life until they feel they have “their academic lives under control.”⁶² However, as recent research shows, first-generation students actually derive more benefit from their involvement in such activities, particularly those related to academics and that involve interactions with faculty members, than their peers.⁶³

Lower levels of academic and social integration among first-generation students are due, in large part, to their demographic and enrollment characteristics or mode of college attendance.⁶⁴ As previously mentioned, first-generation students are more likely to live and work off-campus and to take classes part-time and discontinuously while working full-time.⁶⁵ First-generation students often spend little time on campus except when attending class, and they spend relatively little continuous time as students on a daily basis as they often schedule classes around their work schedules.⁶⁶ According to Billson and Terry (1982), first-generation students are more likely to identify with and to be integrated

into the world of work, they are more likely to put work over their studies when a conflict arises, and they are more likely to leave college before earning a degree to take a full-time job. The stress of attempting to balance the competing demands of working full-time and attending college is most acutely felt by adult first-generation students, many of whom are also married and/or have children.⁶⁷ Furthermore, Pascarella and his colleagues (2004) found that working while attending college has stronger negative implications for first-generation students in terms of postsecondary outcomes than for their peers.

The extent to which first-generation students must work while attending college is inextricably related to finances and financial aid. According to Cabrera, Nora, and Castaneda (1992), students' ability to pay greatly affects whether and how students interact with their college environment (as cited in Pascarella et al, 2004). Unmet financial need increases the work burden on students, which may limit their academic and social integration on campus as well as their persistence to degree. Recent research has found that increases in financial aid, particularly grants and work-study, increase the likelihood that first-generation students will persist in college, while increases in loan debt increase the likelihood that they will depart.⁶⁸ Unfortunately, stagnant funding for the federal Pell Grant and Work-Study programs and steady increases in tuition and fees across the country have decreased the purchasing power of grant aid in recent years. In 2003, the maximum Pell Grant award covered only 41 percent of the costs of attending a public, four-year institution, down from 77 percent in 1980.⁶⁹ The result is a considerable increase in the work and loan burden on all students, which puts first-generation students at particular risk.

Cultural Adaptation

First-generation college students not only face barriers to their academic and social integration on campus, they also confront obstacles with respect to cultural adaptation.⁷⁰ As a number of research studies and personal accounts have shown, first-generation students often experience discontinuities between the culture (i.e. norms, values, expectations) of their families and communities and the culture that exists on college campuses, which they often describe as "worlds apart." The extent to which first-generation students can participate in and transition across these worlds, which can be aided or impeded by relationships at home and on campus, has a significant impact on whether they can be successful in college.⁷¹

For first-generation college students, going to college constitutes a major disjunction in family patterns, relationships, and life. They are, in effect, breaking rather than continuing family tradition by being the first in their families to attend college.⁷² While the parents of first-generation students are often supportive of their decision to go to college, even making significant sacrifices to enable them to do so, the parents also often feel they cannot relate to their children after they go to college and vice versa.⁷³ Relatives may become critical of students' personal choices and decisions as they perceive them to be changing or separating from the family and/or not fulfilling their family responsibilities.⁷⁴ Relatives may also become unsupportive and may even discourage them from attending or completing college.⁷⁵ Relationships with friends who did not attend college may also become strained and difficult to maintain.⁷⁶ The pressures and conflicts in relationships with family and friends may cause intense feelings of isolation, estrangement, confusion, guilt, and anguish for first-generation college students.⁷⁵ The stress of these conflicts is often particularly acute for first-generation students from racial and ethnic minority backgrounds.⁷⁸

According to Richardson and Skinner (1992), "first-generation students frequently describe their first exposure to campus as a shock that took them years to overcome."⁷⁹ First-generation students, particularly from racial and ethnic minority backgrounds, also often describe themselves as unprepared for the isolation and alienation they felt upon arriving on campus.⁸⁰ As other research has shown, first-generation college students are more likely to view the campus environment, particularly the faculty, as less supportive and less concerned about them.⁸¹ First-generation students are also more likely to report having experienced discrimination on campus.⁸² Thus, as Rendon (1992) describes from her own experience, first-generation students are often unable to fully participate in and benefit from the college experience due to the intense conflicts and problems "that arise from [living] simultaneously in two vastly different worlds while being fully accepted in neither."⁸³

Interventions to Promote College Access and Success for First-Generation College Students

There are a growing number of college access and success programs across the country that target low-income, minority, and first-generation students. Such programs are sponsored and supported by postsecondary institutions or systems like the CUNY College Now program; by states through programs like

Florida's College Reach Out Program; and by private foundations like the Gates Millennium Scholars Program.⁸⁴ However, the most well-known and long-standing are the federally-funded TRIO and GEAR UP programs.

The GEAR UP and TRIO programs form a continuum of support for economically and educationally disadvantaged students that extends from middle school through college.⁸⁵ Nationwide, more than 2,700 TRIO programs serve nearly one million low-income and first-generation students annually:

- The Talent Search and Upward Bound programs provide pre-college services that aim to increase college awareness and preparation among middle- and high-school students. Both programs offer counseling, tutoring, mentoring, and workshops to provide students with information about the college admissions process as well as to provide assistance with obtaining financial aid (i.e. help with filling out the FAFSA) and preparing for college entrance examinations. Upward Bound offers a more intensive program that includes supplemental academic instruction in key college-preparatory courses on Saturdays throughout the school year and during a six-week summer program held on a college campus. The Upward Bound program culminates in a bridge program that assists students with the transition from high school to college.⁸⁶
- The GEAR UP program is a school-based intervention (whereas Talent Search and Upward Bound are student-centered interventions) that uses a cohort approach to deliver pre-college services similar to those offered by Talent Search to a group of students starting in middle school and continuing through their high school years. The GEAR UP program also offers scholarship aid to its participants. The program serves more than one million students per year.⁸⁷
- The Student Support Services and the McNair Scholars programs serve low-income and first-generation students who are enrolled in college. Student Support Services provides services aimed at improving college persistence and graduation rates among this population, while the McNair program aims to prepare low-income and first-generation students for advanced graduate study at the doctoral level.⁸⁸
- The Educational Opportunity Centers help out-of-school youth get back on the college track.⁸⁹

Although there are a number of challenges to accurately evaluating the impact of outreach programs,⁹⁰ evaluation data from the TRIO programs has generally demonstrated a positive impact on the educational outcomes of low-income and first-generation students. Evaluation data has shown that students who participate in the Upward Bound and Talent Search programs go to college at much higher rates than other low-income and first-generation students, nearly 75 percent compared to about 40 percent respectively.⁹¹ Evaluation data has also shown that students who participate in Student Support Services have higher grades, earn more credits, and have higher retention and graduation rates than other low-income and first-generation college students.⁹² It should be noted, however, that despite the longevity and the demonstrated success of—as well as the considerable need for—these programs, the funding for the pre-college GEAR UP and TRIO programs (Upward Bound and Talent Search) has been targeted for elimination by the current administration in the annual budget for the last several years in a row. The funding has been restored in Congress each year due in large part to input from program directors and student alumni from across the country who have benefited greatly from their participation in these programs.

Conclusions

There has been a sea change in the demographics of higher education as increasing numbers of female students, students of color, and students from low-income backgrounds have gone to college, many of whom are the first in their families to do so. Despite considerable gains in postsecondary access and participation among underrepresented populations, first-generation college students remain at a distinct disadvantage. This review of the research has identified a number of problems along the postsecondary pipeline that put first-generation students at risk for not going to and/or graduating from college. However, as the research suggests, there are possibilities for intervention at each of the pipeline leaks that can increase the chances that first-generation students will gain access to and be successful in college:

- **Improving pre-college preparation:** A rigorous high school curriculum, including advanced mathematics, can substantially narrow the gap in college attendance for first-generation students. First-generation students and their parents need more information and counseling about the “gateway courses” to college well before high school, especially since the “math track” to college starts with eighth grade algebra. First-generation students also need greater access to college-preparatory courses, which are often not offered at the schools they attend.⁹³

- **Forming early aspirations and plans for college:** Parental involvement is the most important factor affecting students' aspirations and plans for college, regardless of parents' level of education, which suggests that early outreach to first-generation students and their parents with information about the importance of postsecondary education—as well as more accurate information on how to prepare, apply, and pay for it—could greatly improve the rates of college preparation and enrollment for this population.⁹⁴
- **Increasing access to financial aid:** When, where, and how first-generation students, many of whom come from low-income backgrounds, attend college are all affected by inadequate financial aid and/or lack of information about how to obtain it. Delayed enrollment, initial enrollment in the two-year sector, part-time and discontinuous enrollment while working full-time, and living off-campus all reduce the likelihood that first-generation students will persist in college; first-generation students' mode of college attendance might be addressed by targeting additional aid to this population.⁹⁵
- **Easing the transition to college:** First-generation students need considerable support as they make the complex academic, social, and cultural transitions to college. They need validation that they are not only capable of succeeding in college, but that they belong on campus as well.⁹⁶ Early support through bridge and orientation programs can socialize first-generation students to the expectations of the academic environment; involving parents also helps them to understand the demands of academic life.⁹⁷ Advising, tutoring, and mentoring by faculty and peers can help maintain needed support throughout the college years.⁹⁸ Participation in special programs for at-risk populations can “scale down” the college experience for first-generation students by providing them with personalized attention from staff and a place to connect with supportive peers who share common backgrounds and experiences.⁹⁹
- **Increasing exposure to and engagement with the college environment:** Colleges and universities must remove the barriers (primarily financial) that prevent first-generation students from fully participating and engaging in the experiences that are associated with success in college (i.e. living on campus, involvement in extracurricular activities, interaction with faculty outside of class, use of available support services). Offering additional opportunities for work-study is one strategy that would increase the amount of time first-generation students spend on campus while meeting their financial needs. Focusing on increasing interaction and engagement in the

classroom is another strategy that makes use of, for some first-generation students, the only time they spend on campus.¹⁰⁰

A number of these interventions are already incorporated in existing outreach programs, such as the federal GEAR UP and TRIO programs. However, as previously mentioned, financial support for these programs has been threatened in recent years. Furthermore, it is imperative that efforts to improve postsecondary access and success for first-generation students recognize and address the systemic nature of the underlying problems (i.e. inequalities in the K-12 system) related to postsecondary opportunity in order to generate viable solutions.¹⁰¹

ENDNOTES

¹ College Board, 2004; Institute for Higher Education Policy, 2005.

² Lohfink and Paulsen, 2005.

³ Berkner and Chavez, 1997; Bui, 2002; Chen, 2005; Choy, 2001; Horn and Nunez, 2000; Inman and Mayes, 1999; Lohfink and Paulsen, 2005; Nunez and Cuccaro-Alamin, 1998; Somers, Woodhouse, and Cofer, 2004; Terenzini, Springer, Yaeger, Pascarella, and Nora, 1996; Volle and Federico, 1997.

⁴ Chen, 2005; Choy, 2001; Inman and Mayes, 1999; Lohfink and Paulsen, 2005; Nunez and Cuccaro-Alamin, 1998; Terenzini et al, 1996; Pascarella, Pierson, Wolniak, and Terenzini, 2003, 2004; Somers et al, 2004; Volle and Federico, 1997; Warburton, Bugarin, and Nunez, 2001.

⁵ Berkner and Chavez, 1997; Chen, 2005; Choy, 2001; Horn and Nunez, 2000; Nunez and Cuccaro-Alamin, 1998; Warburton et al, 2001.

⁶ Berkner and Chavez, 1997.

⁷ Berkner and Chavez, 1997.

⁸ Choy, 2001.

⁹ Chen's study examines postsecondary enrollment and attainment as of the year 2000 for 1992 twelfth-graders from NELS:88 who entered college between 1992 and 2000.

¹⁰ Chen, 2005.

¹¹ Berkner, He, and Cataldi, 2002; Choy, 2001; Horn and Nunez, 2000; Ishitani, 2003; Nunez and Cuccaro-Alamin, 1998; Warburton et al, 2001.

¹² Choy, 2001; Nunez and Cuccaro-Alamin, 1998.

- ¹³ Choy, 2001.
- ¹⁴ Choy, 2001; Nunez and Cuccaro-Alamin, 1998.
- ¹⁵ Choy, 2001, pg. 8.
- ¹⁶ Choy, 2001.
- ¹⁷ Berkner and Chavez, 1997.
- ¹⁸ see also Choy, 2001.
- ¹⁹ Choy, 2001.
- ²⁰ Inman and Mayes, 1999; Terenzini et al, 1996; Volle and Federico, 1997.
- ²¹ Berkner and Chavez, 1997; Choy, 2001.
- ²² Berkner and Chavez, 1997; Nunez and Cuccaro-Alamin, 1998.
- ²³ Hossler, Schmit, and Vesper, 1999.
- ²⁴ Horn and Nunez, 2000; Hossler et al, 1999.
- ²⁵ Terenzini et al, 1996 .
- ²⁶ Berkner and Chavez, 1997.
- ²⁷ Billson and Terry, 1982; Horn and Nunez, 2000; Terenzini et al, 1996; York-Anderson and Bowman, 1991.
- ²⁸ London, 1989, 1992.
- ²⁹ Volle and Federico, 1997.
- ³⁰ Volle and Federico, 1997.
- ³¹ Pratt and Skaggs, 1989 as cited in McConnell, 2000.
- ³² Vargas, 2004.
- ³³ Hossler, Schmit, and Vesper, 1999, pg 26.
- ³⁴ Choy, 2001; Oliverez and Tierney, 2005; Tornatzky, Cutler, and Lee, 2002; Vargas, 2004.
- ³⁵ Choy, 2001; National Center for Education Statistics NCES , 2002.
- ³⁶ Tornatzky et al, 2002.
- ³⁷ Vargas, 2004.
- ³⁸ Horn and Nunez, 2000.

- ³⁹ see also Choy, 2001.
- ⁴⁰ McDonough, 1997; Vargas, 2004.
- ⁴¹ Tornatzky et al, 2002.
- ⁴² Vargas, 2004.
- ⁴³ Berkner and Chavez, 1997; Choy, 2001; Volle and Federico, 1997.
- ⁴⁴ Berkner and Chavez, 1997.
- ⁴⁵ see also Vargas, 2004.
- ⁴⁶ Berkner and Chavez, 1997; Pascarella et al, 2004.
- ⁴⁷ see also Inman and Mayes, 1999; Lohfink and Paulsen, 2005.
- ⁴⁸ Inman and Mayes, 1999.
- ⁴⁹ Vargas, 2004.
- ⁵⁰ as cited in McConnell, 2000.
- ⁵¹ Pascarella et al, 2004; Vargas, 2004.
- ⁵² Terenzini, Rendon, Upcraft, Millar, Allison, Gregg, and Jalomo, 1994.
- ⁵³ Pascarella et al, 2004, pg. 429; see also Choy, 2001; Ishitani, 2003.
- ⁵⁴ Chen, 2005; Lohfink and Paulson, 2005; Nunez and Cuccaro-Alamin, 1998; Warburton et al, 2001.
- ⁵⁵ Richardson and Skinner, 1992.
- ⁵⁶ Bui, 2002; Cruce, Kinzie, Williams, Morelon, and Xingming, 2005; Penrose, 2002.
- ⁵⁷ Chen, 2005; Nunez and Cuccaro-Alamin, 1998; Warburton et al, 2001.
- ⁵⁸ Chen, 2005; Pascarella et al, 2003, 2004; Terenzini et al, 1996; Warburton et al, 2001.
- ⁵⁹ Pike and Kuh, 2005.
- ⁶⁰ Nunez and Cuccaro-Alamin, 1998; Pascarella et al, 2003, 2004; Richardson and Skinner, 1992; Terenzini et al, 1996.
- ⁶¹ Billson and Terry, 1982; Lohfink and Paulsen, 2005; Nunez and Cuccaro-Alamin, 1998; Pascarella et al, 2003, 2004.
- ⁶² Terenzini et al, 1994, pg 64.

- ⁶³ Filkins and Doyle, 2002; Lohfink and Paulsen, 2005; Pascarella et al, 2003, 2004; Terenzini et al, 1996
- ⁶⁴ Richardson and Skinner, 1992.
- ⁶⁵ Chen, 2005; Choy, 2001; Inman and Mayes, 1999; Lohfink and Paulsen, 2005; Nunez and Cuccaro-Alamin, 1998; Terenzini et al, 1996; Pascarella et al, 2003, 2004; Somers et al, 2004; Volle and Federico, 1997; Warburton et al, 2001.
- ⁶⁶ Richardson and Skinner, 1992.
- ⁶⁷ Zwerling, 1992.
- ⁶⁸ Lohfink and Paulsen, 2005; Somers et al, 2004.
- ⁶⁹ King, 2003.
- ⁷⁰ Nunez and Cuccaro-Alamin, 1998.
- ⁷¹ Lara, 1992; London, 1989, 1992; Phelan, Davidson, and Yu, 1993; Piorkowski, 1983; Rendon, 1992; Rodriguez, 1982; Terenzini et al, 1994; Weis, 1985, 1992.
- ⁷² Terenzini et al, 1994.
- ⁷³ London, 1989, 1992; Rosas and Hamrick, 2002.
- ⁷⁴ London, 1989, 1992.
- ⁷⁵ London, 1989, 1992; Terenzini et al, 1994, 1996.
- ⁷⁶ Olenchak and Hebert, 2002; Terenzini et al, 1994, 1996.
- ⁷⁷ Lara, 1992; London, 1989, 1992; Piorkowski, 1983; Rendon, 1992; Rodriguez, 1982.
- ⁷⁸ Lara, 1992; Richardson and Skinner, 1992; Rendon, 1992; Rodriguez, 1982.
- ⁷⁹ Richardson and Skinner, 1992, pg. 33.
- ⁸⁰ Ibid.
- ⁸¹ Pike and Kuh, 2005; Terenzini et al, 1996.
- ⁸² Richardson and Skinner, 1992; Terenzini et al, 1996.
- ⁸³ Rendon, 1992, pg. 56.
- ⁸⁴ see Jones, 2003; Cunningham, Redmond, and Merisotis, 2003; Erisman and McSwain, 2006.
- ⁸⁵ Gullatt and Jan, 2003.
- ⁸⁶ Gullatt and Jan, 2003; U.S. Department of Education, 2002b, 2004.

- ⁸⁷ Gullatt and Jan, 2003.
- ⁸⁸ Gullatt and Jan, 2003; U.S. Department of Education, 1997, 2005a, 2005b.
- ⁸⁹ U.S. Department of Education, 2002a.
- ⁹⁰ Gullatt and Jan, 2003.
- ⁹¹ U.S. Department of Education, 2002b, 2004.
- ⁹² U.S. Department of Education, 1997, 2005b.
- ⁹³ Choy, 2001; Horn and Nunez, 2000.
- ⁹⁴ Hossler et al, 1999; Nunez and Cuccaro-Alamin, 1998; Vargas, 2004.
- ⁹⁵ Vargas, 2004.
- ⁹⁶ Rendon, 1992; Terenzini et al, 1994.
- ⁹⁷ Richardson and Skinner, 1992; Terenzini et al, 1994.
- ⁹⁸ Richardson and Skinner, 1992.
- ⁹⁹ Richardson and Skinner, 1992.
- ¹⁰⁰ Pascarella et al, 2004; Terenzini et al, 1996.
- ¹⁰¹ Gullatt and Jan, 2003.

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Accessibility to the PhD and Professoriate for First-Generation College Graduates: Review and Implications for Students, Faculty, and Campus Policies

KEVIN M. KNIFFIN

Introduction

Diversity on campus has become commonly accepted as a public good—and goal—partly because it measures an institution’s accessibility to a diverse public. Moving from principle to policy, however, there tends to be significantly less agreement about the specific means to open postsecondary education across society. Primarily, “campus diversity” discussions and actions have focused on the gender, ethnicity, and national origin of undergraduate students and, to a lesser extent, faculty and staff. Conflicts concerning how diversity should be achieved according to these measures have been disputed in recent years in courts, newspapers, and campus planning committees.

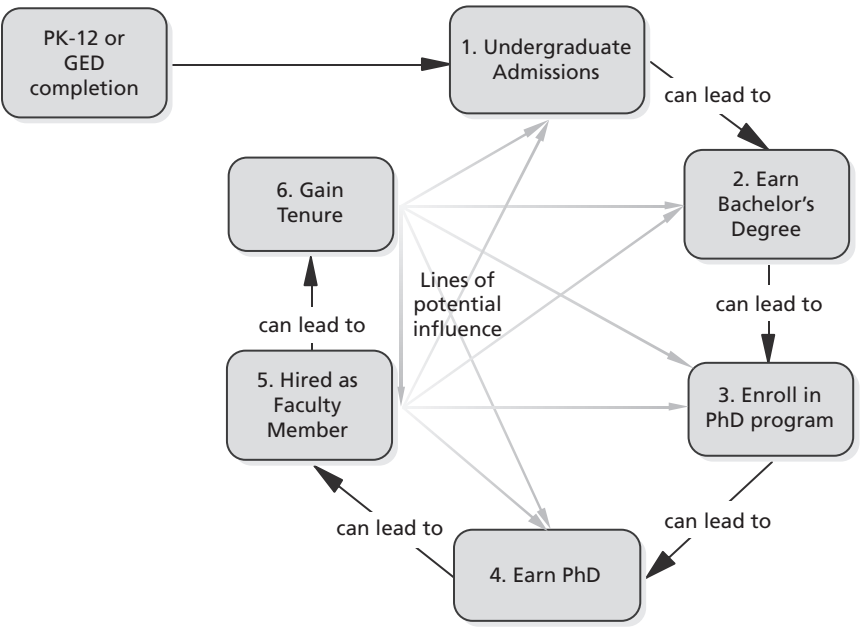
Increasingly, albeit with less attention and controversy, there are policymakers, university administrators, and researchers who are recognizing “first-generation college students”¹ as an important group that has been under-served by higher education. Readers who are unfamiliar with the experiences of first-generation college students are likely to be struck by similarities with accounts of other minority groups. For example, compared to undergraduates with parents who earned baccalaureate degrees, first-generation college students tend to be relatively disadvantaged across myriad variables. Among specific measures, they tend to lack family support for the college search and application process,² are less likely to attend selective colleges,³ feel that they need to work harder than their peers,⁴ have difficulty choosing majors,⁵ feel like they do not “belong” on campus,⁶ are more likely to have breaks in their pursuit of college degrees,⁷ and are less likely to graduate⁸ independent of their ethnic background, gender, and family income.⁹

For those first-generation college students who do earn bachelor's degrees, disproportionately few attend and complete professional or graduate degree programs. As Choy reports on the basis of national surveys conducted in the 1990s, while 34.2 percent of college graduates with one or two parents who graduated from college enrolled in graduate programs, only 24.6 percent of graduates whose parents' formal education ended with one or two high school diplomas did likewise.¹⁰ In light of this statistic about graduate enrollment, it is not surprising that the most recent national *Survey of Earned Doctorates* to consider this subject reports that "first-generation college graduates are under-represented" minorities among doctoral recipients.¹¹

There are several reasons why it is important to better understand the experiences of first-generation college students and graduates. First, there is evidence that suggests, at least, that opportunity or access to the PhD depends upon the formal education of one's parents and is not equal. Second, if we agree that diverse student bodies are best served by diverse faculties, it is important for the benefit of students to better understand why equal opportunity to the PhD is lacking. And third, a better understanding of how a diverse faculty and academic staff promotes equality of educational opportunity has value for building popular support for postsecondary education and broader accessibility.

In this article, I will review illustrative samplings of qualitative and quantitative research concerning the experiences of first-generation college students¹² from the stage of undergraduate admissions through doctoral completion and achievement of tenure. My review will discuss each of the stages identified in Figure 1 before reviewing policies that have been proposed to facilitate better representation of first-generation students and graduates in myriad campus roles (e.g., faculty). Since this subject has broad importance for the health of college and university communities and is not about the linear development of individual careers, Figure 1 is cyclical rather than a linear "pipeline." As indicated by the dashed lines that originate with faculty members, the success of first-generation college students who enter the professoriate can contribute to the success of accessibility initiatives for successive generations of students.

FIGURE 1: Accessibility Cycle for Various Steps in College and University Hierarchies



1. Undergraduate Admissions

Attempts to complete an undergraduate program anywhere in the United States entail a basic set of challenges requiring adjustments. First-generation college students, however, appear to experience a distinct set of additional challenges and barriers that stem from the fact that their families are less equipped to prepare them for working and living as college students. These claims are substantiated by original research drawing on quantitative¹³ and qualitative¹⁴ data. While it is outside the scope of this article to catalog the nature of their common experiences before entering college, there is strong evidence that students whose parents did not earn college degrees step onto an uneven playing field if and when they start thinking about going to college. As a group, first-generation college students tend to be less familiar with, prepared for, and assured about life on campus.

To start with the most basic question of enrollment as a college student, individuals whose parents did not earn college degrees are significantly less likely

themselves to attend college. According to a national survey of 1992 high school seniors, while 28 percent did not have a parent with a college degree, only 22 percent became first-generation college students within eight years of being twelfth graders.¹⁵ If one projects these percentages onto the approximately 3 million students who graduate from high school each year in the United States,¹⁶ then approximately 180,000 more students each year would be applying to college if high school graduates attended college independently of whether their parents earned bachelor's degrees.

For those individuals who do apply to become first-generation college students, Pascarella et al. draw on a national longitudinal survey and report findings that “suggest that the level of parental postsecondary education has a significant unique influence on the academic selectivity of the institution a student attends...”¹⁷ Moreover, Pascarella et al. find that the lower likelihood of attending selective campuses persists for first-generation college students independently of high school grades and parental income. They emphasize, “if one had a large group of high-school graduates who were identical ... in their race/ethnicity and parents’ economic circumstances; their reading, critical thinking, and math skills; and their academic motivation—despite all these similarities, the students in that group whose parents had never been to college would be more likely to attend less selective institutions than their peers whose parents both held a bachelor’s degree or higher.”¹⁸ Pascarella et al. speculate that this disparity cascades into other outcomes where first-generation college students appear disadvantaged.

2. Earn Bachelor’s Degree

Once they get onto campus, first-generation college students are more likely to attend school part-time and intermittently, tend to have lower grade point averages, require more time to select a major field of study, and most need one or more remedial education course(s).¹⁹ First-generation college students also appear significantly less prepared than other students to self-regulate their work, a finding that bodes poorly for the prospect of online learning that champions hail as more openly and evenly accessible.²⁰ More generally, evidence from across the United States indicates clearly that “first-generation students were less likely than students with college-educated parents to earn a bachelor’s degree even after taking into account many related factors, including students’ demographic backgrounds, academic preparation, enrollment characteristics, credit production, and performance.”²¹

While policy-oriented research has tended to rely upon aggregate, descriptive statistics, researchers from the social sciences and humanities have presented qualitative data that humanize the subjects and offer broader analysis. Indicative of the disconnect that usually exists between the quantitative and qualitative studies, the latter group typically does not feature or use the category “first-generation college student”; instead, qualitative researchers often contextualize their discussions in terms of class and its attendant sociocultural differences. In *Limbo: Blue-collar Roots, White-collar Dreams*, Lubrano relies on the label of “straddler” to describe first-generation college students and graduates. More commonly, researchers from the social sciences and humanities have written about the experience of “crossing over” from the “working class” to the “professional” or “middle” class. While this terminology is inconsistently applied and warrants more precision,²² the general finding is that there do exist important sociocultural differences between families with and without college degrees.

Beyond citing easily observable metrics such as working while in school, underperforming on tests, and not graduating at as high a rate, this second group of researchers describes dynamics that emerge from cultural conflict. For example, they write that students who are first-generation college students tend to carry different values, vocabulary, and knowledge than others. These differences lead to daily dilemmas where first-generation students regularly report feeling that they are “imposters” when they are on campus and strangers when they are at home, where they may sense confusion and resentment from family members and neighborhood friends.

In his journalistic review that draws on interviews with 100 “straddlers,” Lubrano paints pictures of people negotiating their “blue-collar” heritage in environments dominated by subjects and agents of the “middle class.” While Lubrano’s review is anecdotal, he does illustrate patterns found in more systematic research. Contrasted with middle-class students who tend to feel entitled to be on campus and do well in college, Lubrano finds that straddlers tend to be focused on making a living to support a family, are fearful of debt, lack calm tactfulness when presented with conflict, and tend to work during summers, vacations, and school years instead of attending camp and flying to spring break. More positively, Lubrano reports that straddlers tend to know the value of a hardy work ethic, have a relatively strong sense of family and place, and derive greater importance from the achievement of graduating from college.

The ambivalence of first-generation college students is shared—and partly created—by many of their parents. London, for example, describes a first-generation undergraduate whose father actively and regularly supported her applications to colleges across the country. When the student gained admission to a selective, faraway college, however, the father switched gears and told her, “You can’t go!” Against her father’s initial orders, the student eventually went to college and the father “presented her with a credit card to be used for emergency purposes, but especially if she wished to fly home.”²³ While the father and mother were proud of their daughter’s achievements, there continued to be pressure throughout the student’s collegiate career to return home.

Counseling psychologist Geraldine Piorkowski introduced the notion that first-generation college students tend to experience a survivor guilt when they make it to—and through—college.²⁴ Recounting cases where students consider their loved ones who did not attend college and ask themselves “Why should I succeed when they failed?,” she observes that “unless one is very comfortable with narcissistic strivings ‘to be special,’ survivor status tends to create conflict.”²⁵ For example, she notes that first-generation college students who work to improve their grammar are ridiculed and taunted by noncollegiate familiars with sayings like: “so you think you’re too good for us.”

Psychologist Barbara Jensen counsels and teaches first-generation college students to deal with the dissonance between their familiar roots and collegiate experiences. Rather than focusing on the individual at the expense of broader social analysis, Jensen concludes that “cultural difference and prejudice against working class culture combine to frustrate the ‘upwardly’ mobile student.”²⁶ With regard to home environments, she describes parents who view college as a wasteful indulgence partly out of fear that they might feel subordinate to their college-educated children. Contending that college education too often requires repudiation of one’s family ways when a first-generation student is on or near the campus, Jensen laments that “to succeed in higher education... you must ‘leave behind’ your ‘low class’ ways, your ‘bad’ English, your values of humility and inclusion ...[and] the people you love!”²⁷

While Jensen is firmly committed to the democratization of access to college and not interested in romanticizing “working-class” lives, she also is clear to resist the way in which some researchers frame the subject. Rather than simply

“seeing working class family life as something to ‘survive,’ or seeing working with one’s hands as inherently inferior,”²⁸ she reminds readers that some people might prefer environments where one’s value is not tied so closely to his or her achievements at work and instead “opt for a culture that emphasizes cooperation over competition.”²⁹ As part of her response to the tears, anger, and social isolation that Jensen encounters in first-generation students, she first recommends that people recognize the “dilemma as a clash of cultures rather than a battle of good and bad, better and worse, normal and abnormal.”³⁰ As a second, more difficult goal, Jensen advises “reconciliation” of an individual’s varied social environments.

Benmayer makes similar arguments when he observes that much of the rhetoric of upward mobility is “fundamentally assimilationist, assuming a linear trajectory ... [in which] students will experience a ‘molting process’ and painfully shed their old cultural skins as they gradually achieve social and economic mobility.”³¹ Benmayer draws on the experiences of the first-generation college students in his classrooms and reports that “they do not break off from their families and in many ways resist the ‘American dream’ of individual upward mobility...”³² While Benmayer’s findings demonstrate variation in the ways in which first-generation students respond to college, it is likely relevant to his report that his campus is exceptional in being “envisioned specifically to serve the historically underrepresented in higher education—low-income, working-class students from ethnic, racial, and im/migrant backgrounds.”³³ In this environment where their experiences are shared by a majority of the students, there is evidence that first-generation undergraduates are less likely to feel isolated or marginalized.

As reported by Orbe, in a study of students from across multiple and varied campuses, students vary in the degree to which their status as a first-generation college student is important or salient to them. Orbe finds that first-generation status is most salient in the lives of students on more selective campuses. He adds that “students who described their [first-generation college student] status as nonsalient were attending, or had attended, less prestigious campuses (e.g., a local two-year business college).” Independent of variation across campus environments, Orbe finds that “students of color, students from lower socioeconomic status, and nontraditional female students most often described a high saliency regarding their [first-generation college] status.”³⁴

While variation and complicating factors exist in each set of circumstances, it is clear from quantitative and qualitative data that first-generation college students face and feel a unique set of challenges. Life on campus is played on an uneven field, and life at home can become uncomfortably or intolerably uneven because of life on campus. Research into these processes is intended to give voice to multicultural dynamics that are often invisible.

3. Enroll in PhD program

Some researchers have argued that family educational background ceases to have significance when undergraduate students become college graduates.³⁵ One line of evidence that supports this position is the fact that first-generation and continuing-generation college graduates do appear to earn comparable salaries as reported approximately one year after completion of their degrees.³⁶ While it is a democratic ideal of education to level social inequalities and equalize opportunity, there exist myriad lines of evidence indicating that family educational background remains important beyond completion of the baccalaureate.

The experiences of first-generation college graduates in pursuit of the PhD offer an array of measures that demonstrate the importance of family background. For starters, disproportionately few first-generation college graduates enroll in doctoral programs. More specifically, while first-generation graduates are as likely as others to pursue MBAs, they are significantly less likely to enroll in doctoral programs.³⁷ As Choy reports, 4 percent of students whose parent(s) earned one or more bachelor's degrees enrolled in doctoral programs while 1 percent of students whose parents did not attend college gained admission and decided to pursue the PhD.³⁸

To complement a review of available numbers that describe accessibility to the PhD and to provide more insight concerning individual experiences, the primary sources for qualitative data are “self-report” or autobiographical accounts from contemporary faculty who were first-generation college graduates enrolled in doctoral programs. There are enough such articles to qualify them as a genre; indeed, several authors have compared “coming out” as a native of the “working class” among faculty to “coming out” as gay or lesbian. Edited volumes of essays include (1) *Reflections from the Wrong Side of the Tracks: Class, Identity, and the Working Class Experience in Academe*, (2) *Strangers in Paradise: Academics from the Working Class*, (3) *This Fine Place So Far From Home: Voices of Academics*

from the Working Class, (4) *Those Winter Sundays: Female Academics and their Working-Class Parents*, and (5) *Working-Class Women in the Academy: Laborers in the Knowledge Factory*.³⁹ Edited volumes of similar essays that focus more on the experience of teaching college students about “working class” lives include (1) *New Working-Class Studies*, (2) *Teaching Working Class*, (3) *What’s Class Got to Do With It: American Society in the Twenty-First Century*, and (4) *What We Hold in Common: An Introduction to Working-Class Studies*.⁴⁰

The patterns of experience reported in essays from first-generation graduates who have earned doctoral degrees are similar to those described in the previous section. Cultural conflicts do not disappear, and in some ways can heighten. Although these writers tend to focus on how their pasts influence their roles as teachers and advisors, they do share a record of their graduate school experiences.

Representative illustrations from *Working-Class Women in the Academy* help to demonstrate that it is often subtle and unspoken happenings that mark the cultural dissonance they encountered. Common themes from these reports focus on different kinds of cultural knowledge and values, a relative lack of time to participate more fully in graduate school, and awkwardness of informal social interactions. Annas, for example, writes that “because I had worked almost full time as a undergraduate, I had little social/intellectual life outside the classroom. As a graduate student, once I stopped working and started hanging out in the library cafeteria like everyone else, I found that I often didn’t know how to talk to people who had had Shakespeare or T. S. Eliot read to them when they were children, who spent their winter vacation in New York seeing the latest plays (I hadn’t even seen a play until I was twenty-two), and whose parents were paying for their education.”⁴¹ hooks, in her review, writes: “later in graduate school I found that classmates believed ‘lower-class’ people had no beliefs and values. I was silent in such discussions, disgusted by their ignorance.”⁴² And Smith recounts how when she has attended “college mixers, graduate school sherry hours, faculty receptions, [and] museum trustees’ dinners in honor of scholarly books to which [she has] contributed...,” she carefully checks the room “trying to spot my kind: *who’s here who wasn’t born knowing how to do this?*”⁴³

In a more recent article, sociologist Mary Kosut describes her account of her “blue-collar doctoral student” experiences as “autoethnographic” since she aims to write about her environments as more traditional ethnographers usually

write about others. Kosut focuses on cultural clashes that she primarily encountered in graduate school partly because she had not had any seminar courses as an undergraduate at public colleges. From her experiences in and around those graduate seminars, Kosut reinforces patterns described above when she concludes: “I did not communicate my thoughts in legitimate academic speak.... I had to alter not only what I said but just as important, how I said it.”⁴⁴

Kosut contends further that, “Much like the glass ceiling limits women from rising to upper-level positions in the labor force, a class ceiling exists within the upper levels of the academy impeding less privileged colleagues from achieving the same levels of success as their more privileged colleagues. The class ceiling is supported by everyday practices....”⁴⁵ While Kosut reviews subtle “everyday practices” such as snubs she received for mispronouncing the names of famous French authors, she also talks about differences in “temporal capital” that determine the extent to which graduate students can immerse themselves in their studies and related campus activities. Noting the possible consequences of the need to work while pursuing a degree, Kosut observes that “those that have significant amounts of temporal capital can ensure more face-to-face interaction with professors as they have the time and flexibility to wait outside professors’ offices during office hours. Temporal capital also allows students to attend scholarly presentations or seminars recommended by professors.”⁴⁶ As these kinds of activities “show you are a serious and committed student,” she concludes that “it is extremely difficult for blue-collar students to compete with students who do not have to work outside of the university.”⁴⁷

In addition to time and specific sets of cultural knowledge, individual attire is another domain of “everyday practices” where first-generation college graduates can be marginalized. For example, Kehoe recalls communication with a graduate student who reported “how she persisted in wearing the polyester slacks, teased hair, and jewelry favored by all her female relatives and old friends. She said that over and over, professors explained to her that she must dress middle class if she expected to be taken seriously as a graduate student.”⁴⁸ Kehoe concludes that “dress as sign and signal of social identity” should be an important part of diversity discussions and that prevailing norms on campus—for undergraduates and beyond—ask “working-class students” “to disrespect the tastes of their people.”

4. Earn PhD

Across disciplines, the most recent *Survey of Earned Doctorates* to consider the experiences of first-generation college graduates reports that 34.5 percent of U.S. citizens who earned doctorates in 2002 had parents who did not earn college degrees.⁴⁹ Hoffer et al. compare this figure to two measures of the population from which doctoral students originate. First, they acknowledge that 66 percent of the first-year student population at postsecondary institutions in 1990 were first-generation students—almost twice the percentage that earned doctorates. Second, 51 percent of those who earned undergraduate degrees in 1994 were first-generation students, which still indicates that disproportionately few first-generation graduates earn the PhD. From these comparisons, Hoffer et al. conclude: “first-generation college graduates are underrepresented in the most recent population of new doctorates relative to their representation in the college graduate population.”⁵⁰ It bears observation that the under-representation of first-generation students is compounded at multiple levels. It begins with disproportionately low college enrollment by high school seniors whose parents did not earn a college degree, is compounded by the disproportionately low number of first-generation college students who earn a baccalaureate degree, and compounded again by the disproportionately low number of first-generation college graduates who earn a doctoral degree.

In addition to being underrepresented among doctoral recipients, first-generation college graduates who earn the PhD are more likely to have debt of \$30,000 or more, less likely to have been funded through research grants or fellowships, and more likely to require longer tenures as doctoral students. Hoffer et al. report that first-generation graduates tend to take 8 years to earn a doctoral degree, compared with 7.3 years for graduates whose parents each had bachelor’s degrees.⁵¹

With respect to undergraduate alma maters, first-generation graduates with PhDs are approximately three times more likely to have attended community college than graduates whose parents each earned bachelor’s degrees (i.e., 14.9 percent vs. 5 percent, respectively). First-generation graduates who earn the PhD are also much more likely to have earned their undergraduate degrees at a comprehensive or regional institution than graduates whose parents each earned bachelor’s degrees (31.7 percent vs. 12.9 percent, respectively), and they are much less likely to have attended a liberal arts college (7.6 percent vs. 17.5 percent, respectively).⁵²

The large difference in the percentages of first-generation doctoral recipients from comprehensive institutions and liberal arts colleges warrants closer comparison. As reported in popular publications for college-bound students, liberal arts colleges have a general reputation for graduating disproportionately high rates of graduate students.⁵³ While this general reputation is largely justified,⁵⁴ Mullen et al. analyzed the national *Baccalaureate and Beyond Study* and found that “liberal arts graduates, once other factors [e.g., parental education] are controlled for, are not more likely to enter graduate programs than are their peers in comprehensive campuses.”⁵⁵ This finding suggests that the reputation of liberal arts colleges for producing disproportionate numbers of graduate students relies strongly on pre-existing inequalities between their students and those at comprehensive campuses.

Across time, the percentage of first-generation college graduates who earn the PhD has decreased significantly. Going back to 1977, 60 percent of doctorates were awarded to first-generation graduates and that percentage has steadily fallen through at least 2002. While “the decline is at least in part due to the general increase in college graduation in the parent population,”⁵⁶ there has not been systematic consideration of the trend’s causes and consequences. It is plausible, for example, that the decline has made doctoral training more difficult for first-generation graduates as their minority status increases.

In a separate survey of more than 9,000 doctoral students from 21 research universities, Nettles and Millett do not report the number of first-generation college students; however, they do find that significant percentages of doctoral students have at least one parent with a doctoral or professional degree (e.g., MD, PhD, JD).⁵⁷ Reporting their results across disciplines, they find that 34 percent of doctoral students in the humanities have at least one parent with an advanced degree while the percentages for students in science, engineering, and social science programs are, respectively, 27 percent, 24 percent, and 26 percent. In education programs, only 16 percent of students have at least one parent with an advanced degree. If one accepts master’s degrees as “advanced,” there is evidence suggesting that each of these reported percentages would increase by approximately 10 percent.⁵⁸ While these disciplinary differences are not the focus of Nettles and Millett’s article, they certainly raise questions for future research (e.g., will the humanities lose relatively more importance and popular relevance with less socioeconomic diversity among its doctoral students?).

5. Hired as Faculty Member

The question of what first-generation doctoral recipients do after completing graduate school inevitably requires acknowledgement that the academic labor market has changed significantly in recent decades, with increasing employment of part-time or adjunct staff.⁵⁹ To the extent that there are full-time, tenure-track positions that continue to open each year, it is relevant to consider whether first-generation college graduates have unique experiences applying for faculty positions.

Among the relatively few studies that have considered this question, Lipset and Ladd describe changes among the professoriate between the end of World War II and 1975, a three-decade period when government support for postsecondary education significantly increased access.⁶⁰ Despite the increase in student diversity during this period, however, Lipset and Ladd draw on a national survey and find that faculty hired during this period were increasingly from wealthier family backgrounds. Lipset and Ladd speculate that increases in the occupational prestige accorded to faculty positions over this period help explain this trend.

Examining faculty demographics in more detail, Lipset and Ladd report that family socioeconomic background (i.e., a set of variables that features parental education levels) correlates with the type of institution that employs faculty members and also with their research, publication, and teaching responsibilities. In particular, they report that “faculty offspring... are most likely to be found in the top schools.... [and] academics from working-class and farm backgrounds turn up most heavily in the lower-status colleges.”⁶¹ Lipset and Ladd also find that faculty from families with relatively less socioeconomic status have higher teaching loads and are less likely to receive research grants and publish original articles.⁶²

The extent to which Lipset and Ladd’s findings persist in today’s academic labor market is relatively understudied. For example, in the four National Studies of Postsecondary Faculty (NSoPF) commissioned by the U.S. Department of Education between 1987 and 2004, information about the parental education levels of faculty has been reported only twice (in 1993 and 1999) and the data have not been closely analyzed.

While it is outside the scope of this article to present an in-depth analysis of the NSoPF, a simple cross-tabulation, using the Department of Education’s Data

Analysis System that compares the parental education of faculty members with the type of institution where they work, replicates effects that are similar to those reported by Lipset and Ladd.⁶³ For example, the most glaring pattern illustrated in Table 1 shows that Research I and II institutions tend to disproportionately hire faculty with parents whose formal education includes advanced degrees. To lesser extents, Table 1 also indicates that Comprehensive I and II institutions tend to employ relatively high proportions of first-generation college graduates while Doctoral I and II and Liberal Arts I and II campuses tend to hire faculty with parents whose formal education includes advanced degrees.

Table 1: 1999 National Study of Postsecondary Faculty, Parental Education Levels and Institution Type (According to Carnegie 1994 Classification)

	Research I and II	Doctoral I and II	Comprehensive I and II	Liberal Arts I and II	Two-year	Other
Estimates	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Total	24.58	9.01	19.97	9.64	29.17	7.63
Highest education level of father						
Less Than Associate's	21.54	8.62	20.69	9.69	32.76	6.69
Associate's or Bachelor's Degree	26.41	9.08	19.95	9.76	26.42	8.37
MA/MS PhD First-Prof	31.78	10.37	18.22	9.25	20.97	9.41
Highest education level of mother						
Less Than Associate's	22.91	8.44	20.74	9.25	31.53	7.13
Associate's or Bachelor's Degree	27.54	10.03	18.53	9.81	25.8	8.29
MA/MS PhD First-Prof	30.13	10.86	18.64	11.55	19.45	9.36

SOURCE: National Survey of Postsecondary Faculty, 1999. <http://nces.ed.gov/dasol/tables/index.asp>

While there are certainly first-generation college graduates teaching as faculty members at comprehensive and two-year campuses because that is their first preference, there are reasons to expect that the disproportionate pattern found in Table 1 is not completely an artifact of revealed preference. Instead, to identify two examples: comprehensive-campus professor Shott indicates a basic preference when he writes that he “would be happier at a research institution.”⁶⁴ Shott draws an analogy between (a) minor league baseball teams and non-research universities and (b) major league baseball teams and research universities to highlight his preference to play in “the big leagues” and his contention that competition among ballplayers is significantly more fair than contests among

researchers. Drawing on his study of American archaeologists, Shott finds that personal background traits (e.g., parental education levels) seem more reliable than scholarly quality in predicting where an academic will find work.⁶⁵ More personally, Peckham is clear to communicate dissatisfaction when he asserts that “some of us struggle through graduate school to become professors in third-rate universities... but [not many working-class graduates are hired in elite colleges or universities] for these positions are reserved by the elite for their children.”⁶⁶ Whether the popular explosion of college ranking guides in recent years has increased thoughts and feelings such as these is a good question for future analysis.

Independent of the individual preferences of faculty members to teach at various types of institutions, it is a common assumption of diversity initiatives that students benefit from role models with whom they have important traits in common. Writing about his own experiences as a first-generation college student, Martin specifies that he was stressed because he “did not have a role model for educated, working class manhood.”⁶⁷ Martin’s experiences suggest the importance of ensuring that future generations of students will be taught by a diverse faculty that is more representative of the general public. Accomplishing this goal, however, will require more investigation of the causes of disproportionate patterns in faculty employment and the possible solutions to the problem.

In a study conducted during the 1990s at a large, research-focused, public university (University of Illinois at Urbana-Champaign), Oldfield and Conant asked faculty members to identify their socioeconomic background and found results consistent with earlier studies. Among their results, they find that “over one-third of faculty parents had more than an undergraduate degree, while only about 10 percent of Americans had this much schooling.”⁶⁸ They also report that 51.6 percent of faculty had at least one parent with a bachelor’s degree, meaning that 48.4 percent of their cross-campus sample were first-generation college students. Because the percentage of first-generation college students that earn the PhD has swung from 60 percent in 1966 to 34.5 percent in 2002, however, this statistic means little without controlling for years since earning the PhD.

Beyond tracking institution-specific measures of whether faculty are first-generation college graduates, researchers should consider adapting methods that have long been employed in research on gender and ethnic diversity in

faculty hiring. These methods suggest useful strategies for testing the extent to which there is (or is not) equal access to the professoriate for first-generation college graduates that earn the PhD. For example, in their test of gender (in)equity in faculty hiring, Handelsman et al.⁶⁹ compare (1) the percentage of women in doctoral programs and (2) the percentage of women holding professorships at each rank in the natural and physical sciences at each field's "top 50" research departments. Handelsman et al. find significant and variably large "hiring gaps" between the percentage of women earning PhDs and the percentage serving as professors at each faculty rank. For future research, it would be reasonable to consider these same questions as they relate to first-generation college graduates who earn the PhD.

6. Gain Tenure

One significant step past hiring as a faculty member is the achievement of tenure. Tenure decisions are important to individuals because they can be high-stakes events that "make or break" academic careers. Independent of its relative assurance of indefinite employment, tenure provides valuable protections and privileges. Given that the subject of tenure achievement for all faculty has been relatively understudied,⁷⁰ it is not surprising that there is no systematic research on tenure rates for first-generation college graduates who earn the PhD. Studies considering tenure rates for male and female faculty members, however, have found significant differences,⁷¹ which suggest that other non-performance-related factors can regularly impact the tenure process. Moreover, the anecdotal evidence that does exist concerning first-generation students' tenure experiences is similar to the accounts of awkwardness and cultural "fitness" described in previous sections.

In one of his interviews with straddlers, for example, Lubrano describes how an assistant professor's anxiety based on his socioeconomic background emerged during his probationary period as a faculty member at a large Midwestern research university.⁷² First, at a campus reception early in his days on campus, the straddler's preference for beer—in a can—did not fit with the preference of most faculty who sipped their wine in tall glasses. Second, during an otherwise casual interaction where faculty at a table started recounting the professions of their grandparents, the first-generation college graduate matched others' tales of stockbrokers and diplomats with reports of his grandfathers who (a) worked as a brakeman for the railroad and (b) maintained vending machines after a farm

injury severed one hand—promptly causing the conversation to stop. In each of these interactions, cultural mis-fitting prompted the assistant professor to conclude that his chances for achieving tenure were nil.

Fortunately, the socioeconomic differences encountered by Lubrano's interviewee did not cause a negative tenure vote.⁷³ The assistant professor's experiences are instructive, however, because the anxiety that he felt was specific to his family's socioeconomic background. It is also possible that this type of experience is common for first-generation students who become faculty members and that such experiences do carry adverse impact for others. These are among the questions that could be answered if institutions collected data on the parental education levels of faculty members.

Policies and Proposals for Equal Opportunity to the PhD and Professoriate

Problems of accessibility such as those described above in each section have prompted programs to pursue redress as well as questions for further debate. One program that spans the domains of undergraduate and graduate education is the federal government's Ronald McNair Postbaccalaureate Achievement Program, which is intended "to increase the number of doctoral degrees earned by students from underrepresented populations."⁷⁴ The McNair program, which started funding projects in 1989, provides eligible undergraduates at participating colleges and universities with services that include specialized mentoring, paid research internships, and an array of activities to facilitate participants' enrollment in doctoral programs (e.g., waiving of fees for the GRE and admission applications). Eligibility requirements for the McNair program stipulate that "at least two-thirds of the participants served by each project must be low-income and first-generation. The remaining one-third may belong to certain groups that are underrepresented in graduate education, presently defined as African American, Hispanic or Latino, and American Indian/Alaska Native."⁷⁵

The program has itself made important gains for its participants and helped to make graduate education more accessible. For example, "the percentage of [the program's college] graduates entering graduate school increased each year from 13 percent in 1998-90 to 39 percent in 2000-01."⁷⁶ The McNair program's achievements help explain why it has expanded from 14 colleges and universities in 1989-90 to 156 institutions in 2001-02 and 178 campuses in 2005-06.⁷⁷

Beyond improving the prospects of admission to graduate programs for participants, one area in which the McNair program has struggled to make gains is persistence towards the PhD. A review of the program reports that “the 43 percent persistence rate after four years (compared with a 50 percent completion rate on average for all doctoral students) for McNair participants needs to be interpreted with the fact that McNair participants are likely to have less financial and social support throughout graduate school than are others who are not low-income and first-generation or underrepresented.”⁷⁸ This finding also needs to be interpreted in light of the meaning of “accessibility.”

Researchers considering access to bachelor’s degrees among first-generation college students observe that “‘Access to higher education’ must be understood to mean not only admission to some postsecondary institution, but also ‘access’ to the full range of college experiences and to the personal, social, and economic benefits to which those experiences and degree completion lead.”⁷⁹ The same position should reasonably apply to graduate education and post-doctoral or professorial opportunities.

Returning to the cycle illustrated in Figure 1, recommendations made for improving access to undergraduate programs apply equally well to other levels. Those recommendations include the facilitation of communication (e.g., by admissions offices) through direct conversations and written publications involving current first-generation students, prospective first-generation applicants, and alums who were first-generation students.⁸⁰ Tokarczyk recommends that the “transition-to-college” courses that many campuses offer as prerequisites include a component on class alongside their discussion of ethnic, gender, and religious differences.⁸¹ Each of these recommendations can be generalized to entail (a) the recognition of first-generation college students and graduates as an underrepresented community on campus and (b) a broadening of awareness about the conflicts faced by first-generation college students and graduates.

While the McNair program bridges undergraduate and graduate levels, advocates for broader accessibility to campus have tended to focus their attention on changes to undergraduate admissions and financial aid, including proposals for “class-based affirmative action.” In their review of the admissions processes at a sample of highly selective colleges and universities, Bowen et al. report that “the ‘adjusted admissions advantage’—the average boost in the odds of admission

provided to an applicant with certain characteristics relative to an otherwise identical application—is about 30 percentage points for a recruited athlete, 28 points for a member of an underrepresented [ethnic] minority group, and 20 points for a legacy” applicant who has either one or two parents who attended the institution.⁸² Bowen et al. are clear that they intend no adverse impact to existing affirmative action programs; rather they seek to better match the rhetoric of diversity with reality on campus. Namely, while a group of institutions including Princeton, Yale, Duke, and the University of Chicago have publicly stated that their “admissions officials give special attention to... those who would be the first in their families to attend any college,”⁸³ Bowen et al.’s analysis finds no evidence of such treatment. They consequently call for actions to facilitate the avowed special attention.

More controversially, some have advocated that first-generation college graduates be subject to one or more forms of affirmative action as doctoral-level researchers. The National Cancer Institute and other parts of the National Institutes of Health, for example, have added first-generation college graduates to the groups of individuals eligible for “minority” grant and fellowship programs.⁸⁴

Similarly, Oldfield and Conant argue that there should be “socioeconomic status affirmative action” in faculty hiring to address the disproportionate absence of first-generation college graduates among college and university faculty, particularly at research institutions.⁸⁵ Advocates of this position argue that the same benefits gained from gender and ethnic diversity would be gained from diversity according to some measure(s) of socioeconomic background (e.g., parental education). Advocates contend that these benefits include (a) service as role model and mentor for first-generation college undergraduates, (b) research and writing about experiences that are best known to people from “lower” socioeconomic backgrounds,⁸⁶ and (c) presence among other faculty and staff as a “reality check” for campuses that are often “sheltered from the [poor] side of our lopsided economy.”⁸⁷ Returning to the steps and dashed lines in Figure 1, it is also true that faculty have unique abilities to influence future provisions for undergraduate admission and mentoring of graduate students in ways that broaden access.

While proposals that directly affect hiring priorities are controversial, a larger community of authors appears to support tracking the socioeconomic backgrounds of faculty members alongside measures of ethnicity and gender. Casey,

for example, writes that the under-attendance to family backgrounds means that “faculty members who broke the class barrier are unlikely to see themselves as usefully ‘diverse,’ unless they also belong to other recognized minority groups. When such faculty are not identified as ‘different’ by themselves or by their institutions, they cannot possibly serve as a resource for students. On the contrary, they tend to blend into the overall academic culture, reinforcing for working-class students the notion that people like them are not supposed to be on campus, that they do not and cannot belong.”⁸⁸ Harrison echoes this sentiment when he reviews his experience on law school hiring committees and observes that “unfortunately, spotting people who are socially and economically disadvantaged is not always easy, especially if they have caught on to the fact that they should adopt the affectations of their privileged competitors.”⁸⁹

For any proposal to address accessibility for first-generation college students and graduates to college and university communities at any level, it is necessary to ask who can initiate or support change. When authors identified above lament the differential accessibility of postsecondary education for individuals on the basis of family educational backgrounds, several have identified the need for organized consciousness-raising.⁹⁰ Towards this end, campus unionists would seem most able to join efforts to broaden access.

Conclusions

The questions identified in this article focus on the ways that first-generation college applicants negotiate an array of roles from undergraduate to graduate student to faculty or academic professional. In order to address this broad mix of questions, research findings from multiple disciplines are integrated and synthesized just as quantitative and qualitative results are juxtaposed.

To review the sets of quantitative studies described above, the following patterns are clear. Disproportionately few high school seniors who do not have a parent with a college degree enroll as undergraduates. Disproportionately few college students who become first-generation college graduates enroll in doctoral programs. And disproportionately few first-generation college graduates who earn the PhD are employed as faculty members at national research universities. This cascade of disproportions would not exist if the formal education level of parents were unimportant; so, the patterns represent a set of problems requiring attention for those committed to the democratizing ideals of college and university education.

Lest anyone interpret the quantitative findings reviewed in this paper to indicate “revealed preferences” whereby first-generation college students either choose to take longer periods to complete their degree or choose more often than other students not to graduate, qualitative data indicate that such an interpretation would be inaccurate. While the ability to afford the direct costs of college and university education is certainly important, qualitative studies indicate a range of additional “class ceilings” that mark the experiences of first-generation students at numerous levels in the campus hierarchy. At least some of these ceilings (e.g., “slights”) can appear unimportant or overdrawn to some; however, they constitute conflicts that are avoidable and, often, sufficient disincentive to prompt people to redirect their energies off-campus.

Three sets of summaries that apply to the experiences of first-generation college students as undergraduates, doctoral students, and faculty members follow:

(1) Because “first-generation college students have been the focus of a growing body of research,”⁹¹ a great deal more is known about the unique nature of their experiences on campus as applicants and undergraduates. In sum, researchers have found that students whose parents did not earn at least one bachelor’s degree tend to be disadvantaged in the admissions process, underprepared once on campus, and less likely to graduate. On the basis of these findings, researchers and policy advisors have recommended the adoption of new policies intended to help make postsecondary education more accessible for first-generation college students.

(2) Beyond the undergraduate level, there has not been as much systematic research; however, it is clearly the case that first-generation college graduates are relatively more likely to not enroll in doctoral programs and are significantly underrepresented among those earning doctoral degrees. It is also clearly the case for many doctoral students, at least, that the sociocultural conflicts faced by first-generation college students do not disappear in graduate school. These problems form part of the reason why the federal government’s McNair program is finding a growing audience across the country. As the McNair program establishes a longer track record, it will be important to refine and strengthen it—as well as any similar programs that emerge.

(3) About those first-generation college graduates who earn the PhD, relatively little is known about their postdoctoral career paths. On the basis of several surveys and case studies, however, there is evidence suggesting that first-generation college graduates who earn the PhD have relatively less success in the academic labor market. If college and university committees and administrators were persuaded that it is important for faculty and academic professionals to have diverse socioeconomic backgrounds, there would appear to be relatively little cost to include measures of parental education levels within existing surveys of campus diversity. Given the research reviewed above, these statistics would allow more debate and discussion about the myriad impacts of individual socioeconomic backgrounds on campus.

While the scope of this article is limited to a cycle that starts with the college application process, it bears observation that the problems described herein stem from inequalities that begin at birth and influence students' educational opportunities in elementary and secondary schools.⁹² To the extent that colleges and universities can work to provide equal and fair opportunities to applicants whose parents did not earn bachelor's degrees, it is important that more be done. Support for equal opportunity, however, needs to extend both before and beyond undergraduate admissions. Benefits for the public good to be gained from this approach include the broader engagement of parts of society that are increasingly cynical about "the American Dream."

ENDNOTES

¹"First-generation college student" is most commonly defined to be an individual who does not have a parent with a bachelor's degree. While it is assumed for simplification's sake throughout this paper that a random individual has two parents, the definition accommodates multiple family models.

²Gibbons and Shoffner, "Prospective First-Generation College Students: Meeting their Needs through Social Cognitive Career Theory" (2004).

³Hoffer et al., *Doctorate Recipients from United States Universities: Summary Report 2002*, 37 (2003).

⁴Bui, "First-Generation College Students at a Four-Year University: Background Characteristics, Reasons for Pursuing Higher Education, and First-year Experiences" (2002).

⁵NCES, *First-Generation Students in Postsecondary Education: A look at their Transcripts* (2005).

⁶ Rodriguez, *Giants Among Us: First-Generation College Graduates who Lead Activist Lives* (2001).

⁷ Goldrick-Rab, "Following their Every Move: An Investigation of Social-class Differences in College Pathways" (2006).

⁸ Pike and Kuh, "First- and Second-Generation College Students: A Comparison of their Engagement and Intellectual Development" (2005).

⁹ NCES, *First-Generation Students in Postsecondary Education: A Look at their Transcripts* (2005).

¹⁰ Choy, *Debt Burden Four Years After College* (2000).

¹¹ Hoffer et al., *Doctorate Recipients from United States Universities: Summary Report 2002*, 36 (2003).

¹² E.g., Orbe, "Negotiating Multiple Identities Within Multiple Frames: An Analysis of First-generation College Students" (2004); Pascarella et al., "First-generation College Students: Additional Evidence on College Experiences and Outcomes" (2004).

¹³ E.g., NCES, *Bridging the Gap: Academic Preparation and Postsecondary Success of First-generation Students* (2001); NCES, *First-Generation Students in Postsecondary Education: A Look at their Transcripts* (2005).

¹⁴ Lubrano, *Limbo: Blue-collar Roots, White-collar Dreams* (2003); Rodriguez, *Giants Among Us: First-Generation College Graduates who Lead Activist Lives* (2001).

¹⁵ NCES, *First-Generation Students in Postsecondary Education: A Look at their Transcripts*, iii (2005).

¹⁶ NCES, *Digest of Educational Statistics Tables and Figures* (2005), <http://nces.ed.gov/programs/digest/d05/tables/dt05_101.asp>.

¹⁷ Pascarella et al., "First-generation College Students: Additional Evidence on College Experiences and Outcomes" (2004).

¹⁸ *Ibid.*, 276.

¹⁹ NCES, *First-Generation Students in Postsecondary Education: A Look at their Transcripts* (2005).

²⁰ This effect is found independently of individual comfort with using computers, Williams and Hellman, "Differences in Self-Regulation For Online Learning Between First- and Second-Generation College Students," 76 (2004).

²¹ NCES, *First-Generation Students in Postsecondary Education: A Look at their Transcripts*, ix.

²² For discussions of varied definitions of "class," see Durrenberger and Erem, *Class Acts: An Anthropology of Service workers and their Union* (2005); Zweig, "Introduction: The Challenge of Working Class Studies" (2004).

- ²³ London, "Breaking Away: A Study of First-generation College Students and their Families," 151-152.
- ²⁴ Piorkowski, "Survivor Guilt in the University Setting" (1983).
- ²⁵ Ibid., 620.
- ²⁶ Jensen, "Across the Great Divide: Crossing Classes and Clashing Cultures," 177.
- ²⁷ Ibid., 178.
- ²⁸ Ibid., 176.
- ²⁹ Ibid., 181.
- ³⁰ Ibid., 182.
- ³¹ Benmayor, "Narrating Cultural Citizenship: Oral Histories of First-generation College Students of Mexican Origin," 109.
- ³² Ibid., 116.
- ³³ Ibid., 97.
- ³⁴ Orbe, "Negotiating Multiple Identities Within Multiple Frames: An Analysis of First-generation College Students," 140.
- ³⁵ Discussion of this subject is reviewed by Mullen et al., "Who Goes to Graduate School?" (2003).
- ³⁶ NCES, *First-Generation Students: Undergraduates Whose Parents Never Enrolled in Postsecondary Education* (1998).
- ³⁷ Christopher, "New Working Class Studies in Higher Education" (2005).
- ³⁸ Choy, *Students Whose Parents Did Not Go To College* (2001).
- ³⁹ Muzzatti and Samarco, eds., *Reflections from the Wrong Side of the Tracks: Class, Identity, and the Working Class Experience in Academe* (2006); Ryan and Sackrey, eds., *Strangers in Paradise: Academics from the Working Class* (1996); Dews and Law, eds., *This Fine Place So Far From Home: Voices of Academics from the Working Class* (1995); Welsch, ed., *Those Winter Sundays: Female Academics and their Working-Class Parents* (2005); Tokarczyk and Fay, eds., *Working-Class Women in the Academy: Laborers in the Knowledge Factory* (1993).
- ⁴⁰ Russo and Linkon, eds., *New Working-Class Studies* (2005); Linkon, ed., *Teaching Working Class* (1999); Zweig, ed., *What's Class Got to Do With It?: American Society in the Twenty-first Century* (2004); Zandy, ed., *What We Hold in Common: An Introduction to Working-Class Studies* (2001).
- ⁴¹ Annas, "Pass the Cake: The politics of Gender, Class, and Text in the Academic Workplace," 168.

⁴² hooks, "Keeping Close to Home: Class and Education," 102.

⁴³ Smith, "Grandma Went to Smith, All Right, But She Went From Nine To Five," 132, author's italics.

⁴⁴ Kosut, "Professorial Capital: Blue-collar Reflections on Class, Culture, and the Academy," 250-251.

⁴⁵ Ibid., 247.

⁴⁶ Ibid., 255.

⁴⁷ Ibid., 256.

⁴⁸ Kehoe, "Dressing for Class" (2005).

⁴⁹ Hoffer et al., *Doctorate Recipients from United States Universities: Summary Report 2002*, 69.

⁵⁰ Ibid., 36.

⁵¹ Ibid., 39.

⁵² Ibid., 71.

⁵³ Wilson, "A Hothouse for Female Scientists," *The Chronicle of Higher Education* (2006).

⁵⁴ Hoffer et al., *Doctorate Recipients from United States Universities: Summary Report 2003* (2004).

⁵⁵ Mullen et al., "Who Goes to Graduate School?," 159.

⁵⁶ Ibid., 40.

⁵⁷ Nettles and Millett, *Three Magic Letters: Getting to Ph.D.* (2006).

⁵⁸ Smith and Tang, "Trends in Science and Engineering Doctorate Production, 1975-1990" (1994).

⁵⁹ For a discussion of important changes in the academic labor market, please see Gold, *The Casualization of the United States Higher Education Instructional Workforce* (2004); Lee and Clery, "Key Trends in Higher Education" (2004); Ehrenberg and Zhang, "Do Tenured and Tenure-Track Faculty Matter" (2005).

⁶⁰ Lipset and Ladd, "The Changing Social Origins of American Academics" (1979).

⁶¹ Ibid., 323.

⁶² Ibid., 324.

⁶³ An online Data Analysis System (DAS) for the NSoPF is found at <http://nces.ed.gov/surveys/npsas/das.asp>

- ⁶⁴ Shott, "Guilt by Affiliation: Merit and Standing in Academic Archaeology," 36 (2004); Shott, "An Unwashed's Knowledge of Archaeology: Class and Merit in Academic Placement" (2006).
- ⁶⁵ Shott (2004, 2006).
- ⁶⁶ Peckham, "Complicity in Class Codes: The Exclusionary Function of Education," 274.
- ⁶⁷ Martin, "In The Shadow of My Old Kentucky Home," 83.
- ⁶⁸ Oldfield and Conant, "Exploring the Use of Socioeconomic Status as Part of an Affirmative Action Plan to Recruit and Hire University Professors: A Pilot Study" (2001).
- ⁶⁹ Handelsman et al., "More Women in Science" (2005).
- ⁷⁰ Dooris and Guidos, "Tenure Achievement Rates at Research Universities" (2006).
- ⁷¹ Ginther and Hayes, "Gender Differences in Salary and Promotion for Faculty in the Humanities 1977-95" (2003).
- ⁷² Lubrano, 84-85.
- ⁷³ Personal communication, Tom Fricke (2006).
- ⁷⁴ Seburn, Chan, and Kirshtein, *A Profile of the Ronald E. McNair Postbaccalaureate Achievement Program 1997-1998 through 2001-2002* (2005).
- ⁷⁵ Ibid., 8.
- ⁷⁶ Ibid., xii.
- ⁷⁷ Ibid., A listing of institutions enrolled in the McNair Program during the 2005-06 academic year is online at <<http://www.ed.gov/programs/triomecnair/mcnairgrantees2005.pdf>>.
- ⁷⁸ Ibid., 28.
- ⁷⁹ Pascarella et al., "First-generation College Students: Additional Evidence on College Experiences and Outcomes," 281.
- ⁸⁰ Lohfink and Paulsen, "Comparing the Determinants of Persistence for First-Generation and Continuing-Generation Students" (2005); Pike and Kuh, "First- and Second-Generation College Students: A Comparison of their Engagement and Intellectual Development" (2005).
- ⁸¹ Tokarczyk, "Promises to Keep: Working-class Students and Higher Education" (2004).
- ⁸² Bowen et al., *Equity and Excellence in American Higher Education*, 166.
- ⁸³ Ibid., 175.
- ⁸⁴ Schmidt, "Not Just For Minority Students Anymore" (2004).

⁸⁵ Oldfield and Conant, 2001.

⁸⁶ Oldfield et al., "Social Class, Sexual Orientation, and Toward Proactive Social Equity Scholarship" (2006).

⁸⁷ Harrison, "Confess'n the Blues: Some Thoughts on Class Bias in Law School Hiring" (1992).

⁸⁸ Casey, "Diversity, Discourse, and the Working-class Student" (2005).

⁸⁹ Harrison (1992).

⁹⁰ Karabel, *The Chosen: The Hidden History of Admission and Exclusion at Harvard, Yale, and Princeton*, 554; Harrison (1992); Lubrano (2003).

⁹¹ Pascarella, "First-generation College Students: Additional Evidence on College Experiences and Outcomes," 249.

⁹² Bowles and Gintis, *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life* (1976).

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Postsecondary Educational Access for Undocumented Students: Opportunities and Constraints

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Introduction

Each year, U.S. high schools graduate an estimated 65,000 undocumented students, of whom only 5 percent ever attend college.¹ For most undocumented immigrants, the major barriers to postsecondary access are both financial and legal. For instance, 39 percent of undocumented children live below the federal poverty level (compared to 17 percent of native-born children) while the average income of an undocumented immigrant's family is 40 percent lower than that of either native-born families or legal immigrant families.² Although states are required to provide undocumented students access to free public K-12 education, once they reach college age such students are in some respects abandoned by the public educational system. For instance, even if an undocumented student was brought by his/her parents to the United States as a young child, graduated from a U.S. high school, and is accepted to a public college or university, in 40 states that student is required to pay non-resident or out-of-state tuition, which costs an average 140 percent more than resident tuition.³ Equally, under federal law these same undocumented students are prohibited from receiving federal financial aid for their education. This prohibition, which applies to undocumented students but not to their counterpart non-citizens who are legal permanent residents, prevents undocumented students from receiving Pell Grants and participating in federally funded work study programs. Furthermore, even if they could afford to attend college or university, such students' undocumented status means they cannot legally work after graduation under current law. This is another restriction that distinguishes undocumented students from their counterpart documented non-citizens, who may obtain permission to work legally in the United States.

Given the size of the undocumented immigrant population in the United States, now estimated to number some 11 million⁴, a significant public policy debate

has emerged concerning the main issue of whether undocumented students should be entitled to attend public postsecondary institutions, and the narrower issues of whether they should be eligible for resident or in-state tuition and who (the federal government or the states) should have the authority to determine this, and whether economic and social returns accrue from investing in undocumented immigrants' higher education. Within the context of this phenomenon of growing numbers of undocumented students graduating from U.S. high schools, then, in this article I explore two aspects of the issue of undocumented students' access to public colleges and universities. In the first section I examine a number of key court rulings, relevant federal statutes, recent state legislative action, and current Congressional proposals impacting undocumented immigrants' eligibility to attend public postsecondary institutions and access in-state tuition. I also consider the extent to which these measures may actually improve undocumented students' access to public colleges and universities and the way in which current policy affects the opportunities available to students upon graduation from college. In the second section, I investigate the economic and non-economic costs and returns of measures to improve postsecondary opportunities for undocumented students. I also examine whether the economic and social returns to higher education accrue in the same way for undocumented students as for resident students. Finally, I offer a policy option for states, should they wish to improve educational opportunities for undocumented immigrants.

The Regulatory Environment

Any discussion of the legal issues surrounding undocumented students and higher education must be situated within the larger debate surrounding unauthorized immigration in general. As Massey, Durand, and Nolan (2002) note, U.S. citizens' attitudes towards immigrants have varied historically, often reflecting the state of the U.S. economy and other internal political considerations, rather than the realities of the actual migration process.⁵ So, paradoxically, even as the movement of goods and capital between the United States and other nations is on the rise, much of the discourse concerning immigration is focused on seeking to restrict the movement of people across borders and to limit access for immigrants currently in the United States to social "benefits," including higher education. It is perhaps more often this highly politicized discourse, rather than sound public policy, that has impacted the way in which immigration, particularly that from Latin America, has been legislated, regulated, and litigated at both the federal and state levels.

Plyler v. Doe

One of the most important statements to date on undocumented immigrants' access to public education was the landmark US Supreme Court case *Plyler v. Doe* (1982), a case related not to postsecondary schooling but to K-12 education. In a 5-4 decision, the *Plyler* Court held that the State of Texas could not deny undocumented immigrant children access to free K-12 public education. While the Court did not explicitly extend the same protections to undocumented students at the college level, *Plyler v. Doe* is relevant to the debate at hand for at least two reasons. First, the Court held that states must show that they have a compelling interest in limiting access to education for a particular group, and that in this case Texas had failed to do so. Indeed, the Court found that there was no significant financial burden imposed by undocumented immigrants on the state and rejected the claim that preventing undocumented immigrants from accessing education would be an effective deterrent to further illegal immigration.⁶ Second, while holding that education is not a fundamental right, the Court stressed that denying K-12 education to undocumented children amounted to creating a "lifetime of hardship" and a permanent "underclass" of individuals. This is significant, because at the time of the *Plyler* decision a high school diploma could very well lead to a well-paying job that could help one move up the socio-economic ladder. Indeed, Justice Brennan's majority opinion is explicit in its declaration of the link between education and social mobility. Today, though, nearly a quarter of a century later, a high school diploma creates fewer opportunities for those entering the labor market. Arguably, the ticket to social and economic mobility has increasingly become a college degree, with college graduates' average annual earnings almost double those of high school graduates and nearly three times those of high school drop-outs.⁷ While in 1982 the Supreme Court sought to prevent the creation of an underclass of undocumented individuals by assuring access to free public K-12 education, the new educational "ticket to the middle class" may well be a college degree.⁸ By today's standards, then, not extending similar protections to undocumented students once they reach college age may create the very socio-economic chasms the Court had originally sought to avoid.

Beyond The *Plyler* Ruling

The regulatory issues related to undocumented immigrants' access to public higher education emerged rapidly post-*Plyler*, becoming engulfed in the larger debate regarding immigration and immigrants' access to social services and

benefits. This larger debate is part and parcel of a broader shift in U.S. domestic politics and foreign relations ushered in by the Reagan administration and the Republican-controlled Congress in the 1980s. Domestically, social welfare programs came under attack while relations with other nations came to be framed within the context of the Cold War and the war on drugs, both of which required strict control of U.S. borders. During this time immigrants and immigration increasingly became synonymous for many with “foreign terrorism,” “invasions” of foreigners “flooding” the border to get access to U.S. welfare benefits, and the nation increasingly being “under siege” from Latin American migrants.⁹ However, and somewhat paradoxically, efforts to secure the border actually encouraged growing numbers of immigrants, once they had successfully crossed, to settle with their families within the United States, as the difficulties of making multiple crossings—the pattern in the 1960s and 70s—increased.

This politicization of the broader issue of immigration has resulted in a number of legislative efforts to limit access to certain benefits, including higher education. A prime example of the latter is California’s controversial 1994 ballot initiative Proposition 187, which would have denied undocumented immigrants almost all social services, including access to K-12 and higher education institutions. The federal courts eventually ruled Proposition 187’s provisions invalid, with a U.S. district court (*League of United Latin American Citizens v. Wilson*, 1998) finding that California’s ban on undocumented students attending higher education institutions was preempted by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA) and the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) (discussed below), both of which indicated Congress’s intention to occupy the field of regulating higher education benefits¹⁰; however, the fact that some 59 percent of California’s electorate voted for it highlights how divisive immigration had become by the mid-1990s.

Federal Law

In 1996, Congress weighed in on the matter of undocumented immigrants, passing the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) and the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), both of which are relevant to the issue of undocumented students’ access to post-secondary education. Hence, according to Section 505 of the IIRIRA:

An alien who is not lawfully present in the United States shall not be eligible on the basis of residence within a State ... for any

postsecondary education benefit unless a citizen or national of the United States is eligible for such a benefit (in no less an amount, duration, and scope) without regard to whether the citizen or national is such a resident (8 U.S.C. § 1623).

The Act further states:

A State may provide that an alien who is not lawfully present in the United States is eligible for any State or local public benefit for which such alien would otherwise be ineligible ... through the enactment of a State law after August 22, 1996, which affirmatively provides for such eligibility(8 U.S.C. § 1621).

For its part, the PRWORA declared that:

An alien who is not a qualified alien is not eligible for any Federal public benefit [including] any retirement, welfare, health, disability, public or assisted housing, postsecondary education, food assistance, unemployment benefit, or any other similar benefit for which payments or assistance are provided to an individual, household, or family eligibility unit by an agency of the United States or by appropriated funds of the United States (8 U.S.C. §1611).

Rather than settling the issue of undocumented students and higher education, however, the vagueness of these statutes has led to significant differences of opinion concerning Congress's intent. Generally, though, there is agreement about two aspects of the laws: 1) neither the PRWORA nor the IIRIRA prohibit public postsecondary institutions from admitting undocumented students; and 2) under these statutes, undocumented individuals are not eligible for public benefits that entail actual monetary assistance, such as federal financial aid programs that provide student loans or work study payments.¹¹ What is not clear, however, is whether the federal statutes confer on states the authority to decide whether or not to grant in-state tuition to undocumented students. Hence, Michael Olivas (2004) interprets the IIRIRA as giving states the authority to determine state residency for tuition purposes (a state benefit) and asserts that this state residency (and thus in-state tuition) does not entail a monetary benefit. Similarly, Ruge and Iza (2005) argue that the statutes do not prohibit states from granting in-state tuition as long as qualified out-of-state U.S. citizens can also receive the same benefit. Others, including the governor of Maryland,

a former Wisconsin governor, and a former attorney general of Virginia, though, have cited the IIRIRA as the primary legal barrier to enacting state laws providing in-state tuition to undocumented students.¹²

The States Respond

Despite—or perhaps because of—the IIRIRA’s unclear intent, since 2001 at least 23 states have considered legislation allowing resident tuition for undocumented students, seven states have proposed laws restricting resident tuition for undocumented students¹³, and Alaska and Mississippi have implemented legislation prohibiting undocumented students from access to resident tuition.^{14, 15} Ten states have enacted laws providing in-state tuition to undocumented students (see Table 1), with such laws having been crafted to ensure that in-state tuition is awarded based on attendance and graduation from a state high school rather than residency within the state. Because a U.S. citizen also would be entitled to in-state tuition based on this criterion, the ten states argue that their laws conform to the restrictions placed on them by the IIRIRA and PRWORA.¹⁶

Over the past few years, several judicial tests of such state laws have emerged. For instance, in *Equal Access Education v. Merten* (2004), a group of undocu-

Table 1 : States allowing resident tuition for undocumented students

State and date enacted	Requirements	Eligible for state financial aid
California - 2001	Must attend CA high school for 3 years and graduate or earn a GED	Proposed, S. B. 160
Illinois - 2003	Must attend IL high school for 3 years and graduate or earn a GED	No
Kansas - 2004	Must attend KS high school for 3 years and graduate or earn a GED	No
Nebraska - 2006	Must attend NE high school for 3 years and graduate or earn a GED	Yes
New Mexico - 2005	Must attend NM high school for 1 year and graduate or earn a GED	Yes
New York - 2002	Must attend NY high school for 2 years and enroll at a state institution within 5 years of graduating or earning a GED	No
Oklahoma - 2003	Must attend OK high school for 2 years and graduate or earn a GED	Yes
Texas - 2001	Must attend TX high school for 3 years and graduate or earn a GED	Yes
Utah - 2002	Must attend UT high school for 3 years and graduate or earn a GED	No
Washington - 2003	Must attend WA high school for 3 years and graduate or earn a GED	No

NOTE. From Krueger, C. (2006, April). In-state tuition for undocumented immigrants. *Education Commission of the States State Notes*. Boulder, CO.

mented students filed suit against seven public universities in Virginia, claiming that the institutions' policies denying undocumented students admission were in violation of federal law. A US district court, however, ruled that federal law permits states to regulate postsecondary admission and so Virginia's public institutions could set their own admissions policies. More recently, a federal district court in Topeka dismissed a legal challenge (*Day v. Sebelius*, 2005) to the 2004 Kansas law providing in-state tuition for certain undocumented students after several out-of-state students attending Kansas colleges and universities, together with the anti-immigration group Federation for American Immigration Reform (FAIR), filed suit against the governor of Kansas and the president of the Kansas Board of Regents, claiming that the Kansas law violated the IIRIRA and the Equal Protection Clause by discriminating against U.S. citizens who would not be eligible for in-state tuition under Kansas law. Although the court did not offer an interpretation of the IIRIRA, it did find that the Kansas law does not create a private right of action and that the plaintiffs failed to show any injury as a result of the law, though currently the district court's decision is being appealed to the Tenth U.S. Court of Appeals.

In December 2005, a similar lawsuit was filed in California Superior Court by a group of out-of-state college students who were attending or who had attended California's public institutions (*Martinez v. Regents of the University of California*, 2005). In this class action suit, the plaintiffs claimed that California's law permitting in-state tuition to undocumented students violates both federal (IIRIRA and PRWORA) and state laws and thus sought reimbursement of non-resident tuition fees and other financial damages. The defendants, however, have filed for dismissal, claiming, among other things, that no private right of action exists and that the plaintiffs have suffered no injury as a result of the state's policy of granting California high school graduates in-state tuition while denying the plaintiffs, who are non-California resident U.S. citizens, in-state rates.¹⁷

Recent Congressional Initiatives

Within this context, a number of recent Congressional initiatives to address undocumented students' postsecondary opportunities offer alternative and, perhaps, more far-reaching solutions to improving higher education access for the undocumented population. Since 2001, at least six bills have been introduced addressing undocumented students and higher education (see Table 2), all of which would have repealed Section 505 of the IIRIRA. This is significant

Table 2: Summary of recent Congressional bills relating to undocumented immigrants’ access to postsecondary education

Date	Legislation	Sponsors
107 th Congress August 2001	S. 1291 Development, Relief, and Education for Alien Minors (DREAM) Act	Sen. Orrin Hatch 18 Cosponsors
107 th Congress May 2001	H.R. 1918 Student Adjustment Act of 2001	Rep. Chris Cannon 62 Cosponsors
108 th Congress July 2003	S. 1545 DREAM Act of 2003	Sen. Orrin Hatch 47 Cosponsors
108 th Congress April 2003	H.R. 1684 Student Adjustment Act of 2003	Rep. Chris Cannon 152 Cosponsors
109 th Congress November 2005	S. 2075 DREAM Act of 2005	Sen. Richard Durbin 20 Cosponsors
109 th Congress April 2006	H.R. 5131 American Dream Act	Rep. Lincoln Diaz-Balart 16 Cosponsors

because while the proposed bills would not require states to give undocumented students resident tuition, they would have given states the authority to determine who is a resident for the purposes of determining in-state tuition. Further, all of the proposed legislation, including the Development, Relief, and Education for Alien Minors (DREAM) Act, would have initiated a process for legal permanent residence, provided that the undocumented students met certain qualifications.

Most recently, on May 25, 2006, the Senate passed the Comprehensive Immigration Reform Act of 2006 (S. 2611), Section 621 of which includes provisions for the DREAM Act of 2006. Like its predecessors, S. 2611 would repeal Section 505 of the IIRIRA, thus giving states the authority to decide who is a resident for tuition purposes. Additionally, DREAM Act provisions of S. 2611 would:

- Make eligible to start the process of conditional legal permanent residence undocumented individuals who:
 - Have been in the United States for at least five years preceding passage of the law.
 - Are under 16 years of age at the time of entering the United States.
 - Are of good moral character (no criminal record prior to age 16).
- Allow individuals who meet the above qualifications and who have graduated or finished two years of an undergraduate degree or served two years in the armed forces to apply for removal of the conditional basis for permanent residence.

- Make undocumented students who adjust their status to lawful permanent residence eligible for student loans, federal work study programs, and certain benefits for armed services members.

The fate of the DREAM Act, however, may depend on how the highly charged broader immigration debate plays out. As this political theater unfolds, the issue of resident tuition for undocumented students may well become buried in the more dramatic debates on increased militarization of the border, tighter enforcement of immigration laws, and the question of amnesty for unauthorized immigrants currently in the United States.¹⁸

Limitations of State and Federal Initiatives

Ten states have passed laws to extend resident tuition to undocumented students, with the laws in three of these states including provisions for tuition aid. Although these states are clearly attempting to improve postsecondary opportunities for undocumented students, such laws do not address the limitations inherent in having undocumented status. For example, they do not remedy the fact that under current federal law undocumented students are not eligible for any of the \$129 billion annually distributed in federal financial aid and loans for postsecondary education.¹⁹ This lack of access to federal funds for postsecondary education may represent a significant financial barrier to college for undocumented students that even resident tuition cannot offset.

To understand more clearly how the lack of access to federal financial aid may impact undocumented students, a closer look at college costs is warranted. Over the last five years, the average advertised tuition and fees at U.S. public institutions has increased 40 percent at four-year institutions and 19 percent at two-year institutions. For the lowest-income families, such sharp increases mean that without access to student aid, the average price of public four-year colleges and universities would comprise nearly 29 percent of their total household income and the price of two-year institutions would make up about 11 percent. Most students, though, do not end up paying full price because they receive some form of federal, state, or institutional financial aid; in 2004, 36 percent and 44 percent of undergraduate students attending public four-year and two-year institutions respectively received tuition aid. This financial aid has helped to offset college price increases such that from 1996-2006, the net price (tuition and fees minus financial aid) increased only \$300 at public four-year

institutions and actually decreased by \$500 at two-year colleges.²⁰ However, because undocumented students are not eligible for federal financial aid and in all but three cases are not eligible for state aid, these students may find that, even with in-state tuition rates, college—particularly four-year institutions—may still be out of reach.

The low numbers of undocumented students taking advantage of resident tuition seem to bear this out.²¹ For example, officials in Kansas had predicted 370 undocumented students would register for in-state tuition in the first semester after it passed its law, but in fact just 30 registered, 22 of whom did so at less expensive community colleges. Likewise, in the first year of New Mexico's law, only 41 undocumented students enrolled with in-state tuition.²² Although between 2001 and 2006 more than 6,500 undocumented students filed for resident tuition in Texas (where the state provides some state-based financial aid for undocumented students), 75 percent attended lower-priced community colleges.²³ Moreover, the fact that in Kansas and Texas students disproportionately registered for community colleges raises the question of whether improved access to community colleges or two-year institutions represents sufficient access to the full array of benefits that a college education provides. This concern is particularly significant in the current winner-take-all higher education market where the individual returns to education increase relative to the prestige of the institution attended.²⁴

The early evidence, then, seems to suggest that providing in-state tuition alone may not provide sufficient financial support for undocumented students to pursue postsecondary education. This is important for two reasons. First, as might be expected, empirical research shows that lower-income students are much more responsive to the price of tuition than are other students.²⁵ Second, the availability of financial aid, particularly grants, has a much greater impact on the postsecondary participation of lower-income students than on middle- or high-income students. This has significant bearings upon whether undocumented students will even attempt to attend college. Thus, while many lower-income, undocumented students have high expectations that they will attend college, these expectations more often than not do not match reality.²⁶ For example, a 2003 study of the undocumented and legal immigrant high school population in Chicago found that while more undocumented students surveyed had college aspirations (80 percent) than did their legal immigrant counterparts (77 percent),

43 percent of undocumented students indicated that they did not know how they would pay for college, compared to 17 percent of immigrant students with legal status.²⁷ Perhaps more troubling is the fact that even if undocumented students attend college, their perceptions about the availability of financial aid may affect whether or not they integrate into institutions' academic and social settings and whether they ultimately persist.²⁸

Taking this all one step further, it is important to recognize that even if undocumented students do attend and complete college using state resident tuition, state laws do not address the fact that even upon graduation their unauthorized status prevents them from working legally in the United States.²⁹ Without legal residency, college-educated undocumented immigrants will find it difficult or impossible to enter professional positions and thus may be relegated to lower paying, unskilled positions that they would have obtained without a college degree—all of which may make them less likely to bother with postsecondary education.

At the federal level, while a DREAM Act would be the best solution proposed to date for such interconnected problems, it is still not a perfect solution for two reasons. First, like other Congressional amnesty initiatives of the past, the DREAM Act would amount to a “one-time fix”³⁰ since it would apply only to those immigrants who entered the United States five years prior to its passage and would not apply to undocumented children brought to the United States post-enactment. This potentially re-starts the problem once the current group of eligible students cycle through the eligibility requirements. Second, DREAM Act students would only be eligible for federal aid in the form of student loans, federal work study, and aid for members of the military (Subtitle C, Sec 631, 2006). The fact that they would not, however, be eligible for federal grant aid amounts to a serious financial obstacle to access.

The Benefits and Costs Under Current Law

Numerous national-level empirical studies have been conducted on the economic costs and returns of immigrant populations, both documented and undocumented, although by its very nature, estimating the impacts of the latter is difficult. Using various methodologies and scenarios, researchers have examined, for example, the public fiscal costs and returns of immigrants in terms of social services used relative to taxes paid and their effects on employment

and wages, the growth rate of the economy, and prices of goods and services, among other variables.³¹ Though such studies provide interesting snapshots of some of the costs and returns of immigrant populations, they also have limitations. These limitations include the fact that the immigrant population itself is not homogenous and so “typical” behavioral assumptions concerning immigrants often skew the studies’ results,³² the use of different time spans (immigrants’ impacts on receiving communities in the short-term versus long-term may be quite different),³³ and the fact that immigration may have quite different impacts in different locations as a result of localized demographic or economic structures, such that immigrants may be beneficial to the local economy in Georgia but not in Kansas. Despite reaching often quite different conclusions, such studies have, however, generally illuminated some important points. First, recent immigrants generally have low incomes, lower than those of native residents. This is significant because, typically, lower-income families contribute less to public revenue. Second, research indicates that, although children and elderly immigrants consume more tax revenues than they contribute (as is also the case with U.S. citizens who are children or elderly), immigrants are net tax payers during their working age years. Finally, the long-term fiscal impact of an immigrant depends upon the level of education achieved. *In particular, immigrants with more education have more positive long-term fiscal impacts.*³⁴ Putting these together, then, the fact that many studies show undocumented immigrants as net consumers (rather than contributors) of public services appears to be “more a product of their low incomes [and low educational levels] than their immigration status.”³⁵

The notion that higher levels of education can translate into higher public fiscal returns was demonstrated in a recent RAND/Hispanic Scholarship study of the potential economic benefits of doubling the rate at which U.S.-born Hispanics receive college degrees.³⁶ The study estimated a cost of \$6.5 billion to double the rate of Hispanics earning a bachelor’s degree; however, doing so would result in an increase of \$13 billion in public revenues in the form of funds from increased taxes and contributions to Medicare and Social Security, and savings made in public welfare, health, and law enforcement programs—a 2 to 1 public benefit cost ratio. RAND researchers found that it would take only 13 to 15 years for the public to recoup the costs of the necessary investment in education.³⁷

Economic and Social Returns of Investing in Undocumented Students' Higher Education

The finding that immigrants with more education have greater long-term fiscal impact on a receiving society echoes much of the literature surrounding human capital theory and the investment concept of education—investing in education generally increases individuals' lifetime earnings and makes them more productive members of the labor force, which itself translates into higher levels of output, income, and economic return at the local, state, and national levels.³⁸ Along with the quantifiable economic benefits of investing in education, scholars have also pointed to the broader societal impacts of higher levels of educational attainment—Bowen (1971), for instance, argued that education has value beyond direct economic benefits because it contributes to enriching individuals' lives and the societies in which they live, whereas Baum and Payea (2005) observed significantly lower incarceration rates and higher volunteerism among those with some college.

Critics of the idea that increased investment in education necessarily translates into economic growth posit that the relationship between education and the economy is tentative at best. Wolf (2002), for example, notes that while education is certainly good for the educated who benefit from higher incomes, it also is true that more education and more education spending do not automatically mean more benefits for society. Pointing to flawed methodologies used to calculate social rates of return on education, she argues that there is not enough convincing quantitative evidence to support the widely accepted assumption that education can deliver economic growth. Further, she concludes that policymakers and business people who focus on education's impact on economic growth are overlooking what is at the heart of education—knowledge and values that are fundamental to society.

How the economic benefits from investing in higher education are quantified, then, may depend on how inputs and returns are measured and compared. What is clear, though, is that the discourse around higher education among policymakers at the state and federal levels is one that largely values higher education relative to its contribution to economic growth. While this may or may not be ideal, it is the political and economic reality in which higher education policy is made.

Are there benefits to be had, then, both to the individual and to the state, from improving undocumented immigrants' postsecondary educational attainment levels? Unfortunately, to date no empirical studies of the returns (either

individual or public) of investing in undocumented individuals' postsecondary education exist, and attempting such a calculation would be monumentally complex. It is possible, however, to explore the most commonly cited returns on investment in postsecondary education more generally, and then to extrapolate how these benefits might accrue in the case of undocumented students. In this regard, four sets of benefits of higher education have been commonly identified, these being public economic benefits, private economic benefits, public social benefits, and private social benefits (see Table 3).

Table 3: The benefits of higher education

	Public	Private
Economic	Increased tax revenues	Higher salaries and benefits
	Greater productivity	Employment
	Increased spending on consumer goods and services	Higher savings levels
	Increased workforce flexibility	Improved working conditions
	Decreased reliance on government financial support	Personal/professional mobility
Social	Reduced crime rates	Improved health/life expectancy
	Increased charitable giving and community service	Improved quality of life for offspring
	Increased quality of civic life	Better consumer decision making
	Social cohesion/appreciation of diversity	Increased personal status
	Improved ability to adapt to and use technology	More hobbies and leisure activities

NOTE: From The Institute for Higher Education Policy (1998, March). *Reaping the benefits: Defining the public and private value of going to college*. Washington, DC.

Would the private higher education benefits outlined in Table 3 accrue for undocumented college graduates in the same way as for residents? The answer to this question will depend upon changes in the law, for even in states that currently provide undocumented immigrants with resident tuition or tuition aid for college, the students' status will remain undocumented upon graduation, preventing them from working legally. This means that they may end up working in lower-paying, under-the-table jobs that require limited skills and in which they can largely go undetected. Upon graduation, these undocumented students, then, may not see the private economic benefits of lower unemployment, higher salaries, improved working conditions, higher savings, and professional mobility. They may also not reap the private social benefit of increased personal

status or improved quality of life for their children. This is significant, for in choosing to pursue postsecondary education undocumented students will, in effect, forego the earnings they could have accrued by working those four years (albeit without authorization and, most likely, in a low-paying position) even though their net returns to postsecondary education are uncertain. Given that the economic costs seem to outweigh the payoffs, it is likely that many undocumented students will decide that even with access to in-state tuition it is simply financially not worth going to college.

Although for the individual student, then, going to college may be a risky, though laudable, decision, discerning whether or not there are public economic and social benefits to increasing undocumented students' access to college may be the more relevant question for public policy debates, since state policymakers are likely to be more concerned about the collective social return (in the form of greater economic competitiveness and/or reduction of social problems) on their investment in higher education. Presumably, the ten states that offer resident tuition to undocumented students have decided that it is worth making some type of fiscal investment in these students, whether that be in the form of state-based financial aid (Texas, Oklahoma, and New Mexico) or simply through the fact that an institution's tuition is typically lower than the actual per student costs incurred by the institution—the result of the fact that many costs for facilities, utilities, and other operations are subsidized by the institution and the state. Again, though, as in the case of individual returns, the public economic benefits would accrue only if students can obtain earnings commensurate with those of a college-educated worker who can work legally after graduation. Certainly, public social benefits in the form of reduced crime, improved civic life, and appreciation of diversity may be enjoyed, but these may not be sufficient incentive for more states to invest in undocumented students. It is important to recognize, however, that this problem is not one confined to expending public resources on undocumented students—any time a state invests in the education of a student, even U.S. citizens, there is always the risk that upon graduation students will move to another state, such that the state that funded the student will not gain any further economic benefit.

What is needed for undocumented students, then, beyond greater access to higher education, is the full enfranchisement that results from documented status, thus leading to higher-paying jobs that can improve their individual

socio-economic status. There is an apparent policy disconnect between providing tuition benefits to undocumented students while not providing a mechanism that allows either the students themselves or the public to reap the returns of this investment. This policy disconnect takes on greater or lesser proportions depending on predictions of future workforce needs. For example, by some estimates by 2015 the United States will have increased its college participation rates by only 13 percent, a growth rate that will cause it to lag further behind other developed nations, including Canada, Korea, and Sweden, in levels of postsecondary attainment.³⁹ Carnevale and Fry (2001) estimate that by 2020, the United States will have created 15 million new jobs requiring some college education, but will face a shortfall of 12 million workers with qualifications to fill the new positions. Furthermore, the Aspen Institute (2002) notes that while economic growth in the United States has traditionally been facilitated by growth in the numbers of native-born workers of prime working age, from now until 2021 there will be no net increase in the numbers of native-born workers aged 25-54, so any growth in the labor supply must come from immigrants or older workers. These two trends mean that the projected worker and skills gap could threaten U.S. productivity, growth, and international competitiveness and, most importantly, widen the socio-economic divide.⁴⁰ Certainly, it should be recognized that predicting the future is fraught with difficulties. Thus, Rothstein (2002), positing that estimates of a college-educated workforce shortage are wildly exaggerated, warns against expanding higher education based on predicted needs of the future workforce, concluding that many of the jobs in the expanding service sector will not require college-educated workers. Nevertheless, even he predicts about a 1 percent shortage in college-educated workers over the next few years.

Arguments About Costs

Precise figures of the exact costs of extending resident tuition to undocumented students are difficult to come by as the majority of cost estimates are annualized and thus do not reflect costs relative to long-term returns in the form of benefits such as increased tax revenue. There are clear direct costs, however, of federal and state measures to increase undocumented students' access to higher education. The Congressional Budget Office (2006), for instance, estimates that the costs of implementing the DREAM Act of 2006 would be some \$60 million between 2007 and 2016. At the state level, costs depend on the number of undocumented students who actually participate, the difference between resident and

non-resident tuition, and whether students are eligible for state-based scholarship programs. New Mexico, for example, estimated that the cost of extending in-state tuition to undocumented students was not “significantly large” but that the costs to its Lottery Tuition Scholarship fund would be between \$200,000 and \$600,000 over a four-year time period.⁴¹ The State of Washington estimated the fiscal impact of its law at less than \$50,000 per year.⁴² Researchers at the University of Illinois-Chicago have estimated it would cost Illinois \$46 million annually in lost revenue from the difference between resident and non-resident tuition, although these estimates were based on the assumption that all eligible undocumented students in Illinois would take advantage of the resident tuition and that all undocumented students would also have otherwise attended college paying full non-resident freight.⁴³

On the other side of the coin, however, the Massachusetts Taxpayers’ Foundation (2006) estimated that resident tuition for undocumented students in that state would actually net new revenues over a three-year period of \$2.5 million by expanding the numbers of students at the state’s underutilized postsecondary institutions. Such net gains may also be reaped in other states where undocumented students paying in-state tuition would represent new students, thus generating revenue. This is particularly significant in states where the difference between in-state and out-of-state tuition is so great that very few undocumented students would attend if they were required to pay full non-resident tuition and in states where higher education capacity exceeds the number of students who apply. For the eight states that will see significant (11-35 percent) declines in the number of high school graduates and the twelve that will experience more moderate reductions (1 to 8 percent) during the next two decades, then, undocumented students could represent an important untapped higher education market.^{44, 45}

In weighing the potential costs and benefits of increasing higher education access for undocumented students, though, it is also important to consider the costs to institutions themselves, particularly given that evidence suggests that undocumented students are likely to come from low-income backgrounds and that low-income students often arrive on campus with risk factors that require institutional attention⁴⁶—for example, students from low-income backgrounds often have lower levels of academic preparation that require remedial coursework or specialized programs to ensure retention, all of which mean more institutional dollars need to be invested in the student. However, given that

proposals to provide access to undocumented students require them to have graduated from a U.S. high school, these problems are not confined to undocumented students and would also be associated with having to educate a citizen with similar socio-economic status.

Certainly, opponents of measures to provide in-state tuition to undocumented students argue that the direct costs are simply too high and that it is patently unfair to ask taxpayers to shoulder the burden for non-U.S. citizens. Thus, FAIR estimates that providing K-12 education for undocumented children already costs the United States some \$7.4 billion per year and that providing access to college would only cost more.⁴⁷ However, the fact that the *Plyler* ruling requires undocumented students to be educated at least through the end of high school means that there are today tens of thousands of undocumented students graduating from high school each year, many of whom have lived in the United States for nearly two decades and who are unlikely to leave after graduation. Moreover, even if the U.S. border were hermetically sealed today, the immigration patterns of the past 20 years mean that U.S. high schools will be graduating undocumented students for at least the next 15 to 20 years, which raises the policy question of what to do with such students when they do finish high school. Irrespective of whether we may agree with the moral argument that allowing such students access to college would be rewarding the illegal behavior of their parents, then, from an economic policy point of view the major question would seem to be whether allowing them to go to college and to work would serve as a means to begin to recoup some of the social investment already made in them.

Finally, opponents of enacting either federal or state legislation to provide tuition benefits to undocumented immigrants argue that doing so condones illegal immigration and will be an incentive for more people to enter the United States illegally in search of education benefits, which will further increase costs. This interpretation of the migration process—that immigrants are attracted to the United States by high social benefits (health, education, and welfare)—fails to appreciate the complexity of international migration. Factors including the role of migrant networks and family connections, the migration industry (labor recruiters, brokers, interpreters, smugglers, etc.), structural dependence on immigrant labor on the part of host countries, and structural dependence on exporting labor on the part of sending nations all impact the migratory process.⁴⁸ Although the empirical evidence suggests undocumented workers do not come

to the US to take advantage of its welfare system, and conversely are not likely to leave because the state denies certain benefits, the dominance of this discourse has been significant: It has served to structure the political thinking and rhetoric of those who oppose giving undocumented students access to in-state tuition. They suggest that to grant such students this access will simply encourage greater migration and/or reward their parents' illegal behavior.

Conclusions and Policy Recommendations

Approximately 1.8 million of the nation's 11 million undocumented immigrants are under the age of 18.⁴⁹ Where, exactly, these children end up as adults along the socio-economic stratum may well depend on whether or not they have access to affordable postsecondary opportunities and whether they then have opportunities to put their education to work as legal permanent residents. Although state laws are important in that they are strong statements of states' fundamental belief in the importance of equal educational opportunities for all students, state laws alone cannot fully address financial barriers to access or issues related to employment. This means that neither the students themselves nor society at large can reap the full spectrum of benefits that college-educated undocumented students could bring. Clearly, passage of the federal DREAM Act is the best solution currently on the table, since it would allow access to federal student loans and enable eligible students to obtain legal permanent residence. However, a more comprehensive solution would be for the DREAM Act to allow eligible undocumented students access to additional federal financial aid beyond student loans and to extend eligibility beyond those who are already in the United States at the time of its passage.

Although the immediate, direct costs of improving undocumented students' postsecondary opportunities are real and in some cases significant, there are likely to be far greater long-term costs for essentially excluding from the benefits of higher education an entire group of individuals who have received their K-12 education in the United States. Obviously, however, neither higher education nor immigration policies are made in a political vacuum, and what may be good in the long term from a public policy perspective may be untenable as a political position when the future is defined in terms of the next election cycle.

While the federal aspects of undocumented students' postsecondary access are being debated, including giving them residency status so they can legally work,

states can impact undocumented students' educational attainment through other policy options. Two sets of policies may be appropriate in this regard. First, improving postsecondary opportunities for undocumented students is arguably just one piece of the puzzle to ensure that there are no gaps in undocumented students' educational attainment. A well-coordinated state-level educational policy to increase the numbers of undocumented students in public colleges and universities should include not only resident tuition, but also a seamless K-16 approach that addresses high drop-out rates among at-risk populations, identifies best practices to overcome K-12 obstacles such as language and cultural barriers and lack of parental involvement in education, and institutes college retention strategies to ensure that the undocumented students who enter institutions actually graduate.

Second, the issue of the costs and benefits of providing undocumented students access to postsecondary education is clearly one that is sensitive to geography. Currently, some 30 states will see increases in the numbers of students graduating from high school in the next ten years, ranging from increases of less than 10 percent to more than 100 percent, whereas the other 20 states will experience significant declines.^{50, 51} In states where demand for seats at public colleges and universities is likely to outpace capacity, the costs of providing sufficient facilities to educate undocumented students may be greater than the immediate benefits to be reaped in terms of tuition dollars (though still less than the long-term benefits of so doing). In those twenty states where the numbers of students graduating from high school will decline, however, providing access to undocumented students may serve as a way to address the problem of too few students for the amount of educational infrastructure that such states have. As different states grapple with their various future enrollment challenges—challenges that are shaped by the particular demographic and economic forces impacting them—they might consider policies and interstate agreements that facilitate undocumented students' migration to attend public institutions in other states. This might provide benefits both to the “student rich” sending states and to the “student poor” receiving states. By admitting undocumented students from neighboring states, those states with too few students, in particular, would be able to fill previously vacant higher education seats and in the process receive new tuition dollars. Already, agreements to share students and resources exist among the states of the nation's four higher education compacts—the Midwestern Higher Education Compact (MHEC), the Southern Regional Education

Board (SREB), the New England Board of Higher Education (NEBHE), and the Western Interstate Commission for Higher Education (WICHE). For example, students from any of the six NEBHE states may study at any other member state's public higher education institutions for reduced tuition rates when their home state does not offer the undergraduate or graduate degrees they are seeking.⁵² Expanding such agreements to undocumented students would allow a state such as Texas, which will experience growth upwards of 25 percent, to partner with neighboring Louisiana, which is anticipated to see a decline of at least 12 percent in its high school graduates. Of course, such an approach assumes that Louisiana would agree to allow undocumented students to pay in-state rates to attend college and that Texas and Louisiana laws could be crafted to withstand judicial scrutiny (which would entail ensuring that a U.S. citizen from Texas would be eligible for Louisiana in-state rates under the same scheme), and that students and their parents from one region of the country would accept being educated out of state. Nevertheless, such a system is but one example of how states might look beyond their own borders to consider regional approaches to addressing postsecondary access for undocumented students.

ENDNOTES

¹ Passel, 2003.

² Passel, 2005.

³ College Board, *Trends in College Pricing*, 2005.

⁴ Passel, 2005.

⁵ Such variations are reflected in U.S. attitudes towards immigrants from Mexico: post-World War I "nativism" led to the establishment of the U.S. Border Patrol in 1924; virulent anti-immigrant sentiments during the Depression saw massive deportations; the World War II economic boom resulted in public acceptance of the importation of workers for the bracero program; and post-World War II recession and McCarthyism led to the simultaneous deportation of unauthorized immigrants (to satisfy those suspicious of foreigners) and the re-importation of the legal immigrants via the bracero program (to U.S. business interests). Between 1965 and 1985, Mexican migration to the United States developed into a system that "minimized the negative consequences and maximized the gain for both countries" (Massey, Durand, and Nolan, p. 71). In such a migratory regime, US border states received a steady supply of the most able workers (80 percent without dependents) to fill less desirable jobs, and most migrants did not utilize U.S. social services, such as schools, welfare, or food stamps (pp. 70-71). The "relatively porous border" meant that Mexican migrants could return home to families when work in the United States dried up, thus discouraging significant settlement in the United States. Indeed, until the mid-1980s, only 39 percent of migrants attempted to settle in the United States (p. 71).

⁶ Stevenson, 2004.

⁷ U.S. Bureau of the Census, Educational Attainment in the United States, 2004.

⁸ Romero, 2002.

⁹ Massey, Durand, and Nolan, p. 87.

¹⁰ Ruge and Iza, 2005.

¹¹ Ibid.

¹² Ibid.

¹³ Krueger, 2006.

¹⁴ Olivas, 2004.

¹⁵ Alaska, Arizona, Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, North Carolina, Oregon, Rhode Island, Virginia, Washington and Wisconsin have proposed legislation giving resident tuition to undocumented students. Alaska, Arizona, Colorado, North Carolina, Utah and Virginia have considered legislation banning undocumented students from receiving resident tuition. In 2003, Maryland's governor vetoed a bill allowing in-state tuition for undocumented students and Virginia's governor vetoed a bill prohibiting undocumented students from receiving resident tuition (Day v. Sebelius, 2005). In 2006, legislation was introduced in the Georgia General Assembly to deny undocumented students admission to public postsecondary institutions. The bill, SB 171, was later withdrawn by its sponsor, Senator Chip Rogers.

¹⁶ Ruge and Iza, 2005.

¹⁷ Defendants' California State University and California Community Colleges' Reply, 2006.

¹⁸ President Bush has made immigration one of his domestic priorities, focusing on reform that combines increased border security, improved enforcement of immigration laws, holding employers accountable for hiring undocumented persons, a temporary worker program, and the establishment of a process of permanent residency for those already in the U.S. (the White House, 2006). Although the Senate bill combines all of his priorities for immigration, some members of the House of Representatives have rejected any immigration legislation that includes residency or citizenship for undocumented individuals. Representative F. James Sensenbrenner, the House lead negotiator on immigration, "said he would continue to reject President Bush's call for a compromise because he believed that the president, who supports a path to citizenship for illegal immigrants, remained out of touch with the public" (Swarns, 2006, p. 9). Former Speaker of the House, J. Dennis Hastert: "Our number one priority is to secure the border and right now I haven't even heard a lot of pressure to have a path to citizenship." The immigration bill that passed out of the House in 2005, The Border Protection, Antiterrorism, and Illegal Immigration Control Act of 2005, focused only on tightening the border and enforcement (Hulse, C., 2006, p. 1).

¹⁹ College Board, *Trends in Student Aid*, 2005.

²⁰ College Board, *Trends in College Pricing*, 2005.

²¹ There may be several other reasons for the relatively low numbers of undocumented students taking advantage of resident tuition. Language and cultural barriers, shortage of trained teaching professionals, lack of parental involvement, comfort and safety, and work conflicts are often cited as major obstacles to immigrants' educational attainment (Atiles and Bohon, 2002, pp. 42-43). Additionally, there may be a lack of information about college and the availability of resident tuition or complicated application procedures that lead to leaks in the K-16 pipeline.

²² Lewis, 2005, p. A1.

²³ Fischer, 2004, p. 19.

²⁴ Frank, n.d.

²⁵ Paulsen, 2001, p. 121.

²⁶ Hearn, 2001.

²⁷ Mehta and Ali, 2003.

²⁸ Cabrera, Nora, and Castañeda, 1992; St. John, Paulsen, and Starkey, 1996.

²⁹ 8 U.S.C. 1324a and 1324a (b) (1) makes it unlawful and punishable by fines to employ unauthorized persons and requires employers to verify and document that employees have proper documentation.

³⁰ Connolly, 2005.

³¹ Smith and Edmonston, 1997, p.4.

³² Vernez and McCarthy, 1996, p.45.

³³ Smith and Edmonston, 1997.

³⁴ Ibid, p.11)

³⁵ Vernez and McCarthy, 1996, p.45.

³⁶ Vernez and Mizell, 2001.

³⁷ Ibid, p. ix.

³⁸ Paulsen, 2001, p. 56.

³⁹ Ruppert, 2003.

⁴⁰ Aspen Institute, 2002.

⁴¹ S.B. Bill 582, Fiscal Impact Report, 2004.

⁴² H.B. 1079 Fiscal Note, 2003.

⁴³ Mehta and Ali, 2003.

⁴⁴ Western Interstate Commission on Higher Education, 2003.

⁴⁵ Hawaii, Louisiana, Maine, Montana, North Dakota, South Dakota, Vermont, and Wyoming are predicted to see an 11 to 35 percent reduction in high school graduates between 2002-2018. Iowa, Massachusetts, Mississippi, Missouri, Nebraska, New Hampshire, New Mexico, New York, Oklahoma, Pennsylvania, West Virginia, and Wisconsin will experience reductions between 1-8 percent (WICHE, 2003).

⁴⁶ Corrigan, 2003, p. 27.

⁴⁷ Breaking the Piggy Bank, 2003.

⁴⁸ Castles, 2005.

⁴⁹ Passel, 2006.

⁵⁰ WICHE, 2003.

⁵¹ The highest growth (26 to 103 percent) will take place in Arizona, Colorado, Florida, Georgia, Indiana, Nevada, North Carolina, Texas, and Utah. Moderate growth (13-19 percent) will occur in Delaware, Idaho, Maryland, New Jersey, South Carolina, and Virginia. Alabama, Alaska, Arkansas, California, Connecticut, Illinois, Kansas, Kentucky, Michigan, Minnesota, Ohio, Oregon, Rhode Island, Tennessee, and Washington will experience low growth (10 percent or lower) (WICHE, 2003).

⁵² Morphew, 2005.

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African American Access to Higher Education: The Evolving Role of Historically Black Colleges and Universities

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Throughout their history, historically Black colleges and universities (HBCUs) have had to satisfy the aspirations of their students and the demands of a society that offers only limited support for HBCUs and limited opportunities for their graduates. In many ways, these institutions have done quite well. From the late nineteenth century through the mid twentieth century, historically Black colleges and universities enrolled more than 90 percent of African American postsecondary students educated in this country. From their humble origins through the 1950s and 1960s following the *Brown v. Board of Education* desegregation decision, HBCUs served as a key access point for African Americans who sought to achieve political and social mobility through educational attainment. Created as a byproduct of systemic social discrimination, historically Black colleges and universities prepared African American students for leadership positions, primarily within the African American community. Since the last part of the twentieth century, however, in the aftermath of desegregation, many HBCUs have suffered stagnant or declining enrollments. Reductions in the purchasing power of federal aid have been a major factor in this, as have reductions in the level of state support on a per-pupil basis.

Faced with numerous obstacles, HBCUs have often been lightning rods for criticism. Opponents of the Black college model criticize the integrity of its academic programs, particularly in light of the challenges of a new millennium. The recurring question remains: is the need for historically Black colleges and universities as pressing today as was the case a century prior? If so, how might these institutions be adequately supported in their mission to educate African American students in the twenty-first century?

This article argues that, despite the impediments they face, HBCUs continue to play a critical role today. They enroll 13 percent of Black undergraduate students

but produce approximately 22 percent of Black baccalaureates.¹ HBCUs also award approximately 11 percent of the master's and doctoral degrees obtained by African American recipients.² Furthermore, compared to African Americans who earn undergraduate degrees from predominantly White institutions (PWIs), those who graduate from HBCUs have higher rates of job satisfaction and participation in community service after graduating.³ One reason for the success of HBCUs is that they provide a supportive culture for learning that studies have found to be important for African American student achievement. In this regard, they can serve as models for other institutions. The time has come for historically Black colleges and universities to receive the respect and support that they deserve.

Segregation to Desegregation and Beyond

In 1837, in the area immediately southwest of Philadelphia, the first historically Black institution, Cheyney State Teachers College, was established through a grant by Quaker Richard Humphreys, a philanthropist who bequeathed a large portion of his estate towards the education of colored youth. Cheyney was followed shortly thereafter by Lincoln University and, by 1920, more than 100 colleges and universities for African American students had been founded in the United States. For scores of African American families encumbered by bigotry, discrimination, and poverty, the establishment of a culturally congenial academic home base meant that they too were provided access to an academic equity afforded other Americans. Within the African American community, the very names of these institutions spoke of a means to a better way of life: Morehouse. Spelman. Fisk. Howard. These colleges and universities were a reservoir of African American talent and leadership, producing such luminaries as Booker T. Washington, Betty Shabazz, W.E.B. Dubois, Toni Morrison, Ruth Simmons, and Martin Luther King, Jr., among many others.

By the mid twentieth century, however, the significance of these institutions was soon challenged by an unlikely foe: collegiate desegregation. While *Brown v. Board of Education of Topeka* overturned the doctrine of “separate but equal” established in *Plessy v. Ferguson* more than a half century prior, the impact of this ruling was restricted to primary and secondary schools until the landmark case *Hawkins v. Board of Control*. Decided in 1956, the *Hawkins* case introduced the issue of desegregation among institutions of higher education for the first time, though a vague Supreme Court decision on the matter failed to dismantle the existing exclusionary system. This resolution was not evident

until 1964, when President Lyndon Johnson enacted the Civil Rights Act which, among other mandates, initiated a variety of programs designed to promote the recruitment and retention of students of color to predominantly White colleges and universities.

A flurry of legal attacks soon followed. *Knight v. Alabama*, a desegregation lawsuit initiated in 1971, attacked the vestiges of discrimination, most notably the *Lid Bill* (which provided inequitable funding rates for poor and lower-middle-class children). Also significant was *Ayers v. Thompson*, initiated in 1975, in which the plaintiffs, after 30 years and countless appeals, won a \$503 million settlement against the state of Mississippi based upon the underfunding of Mississippi Valley State University and Alcorn State University. Simultaneously, these efforts to dismantle the dual systems of higher education sparked several large predominantly White colleges and universities to identify talented African American students and offer them an opportunity to enroll. The ultimate goal of these initiatives was twofold, providing opportunities for students of color to partake of the rich resources of the nation's largest and most prestigious universities while also allowing these universities to gain from the perspectives and experiences of a more diverse student body.

Among the first to recognize that desegregation would have dire consequences for HBCUs was Benjamin Mays, longtime president of Morehouse College. Mays saw the implementation of Title VI of the Civil Rights Act of 1964 as a direct attack on the existence of historically Black colleges and universities, openly questioning "...how long before all public historically Black colleges are under siege?"⁴ These words proved prophetic: by the late 1960s and early 1970s HBCUs throughout the country were engaged in a recruitment war for their very survival with predominantly White colleges and universities eager to attract academically talented Black students. No longer the sole access point for African Americans seeking to obtain college degrees, HBCUs saw their enrollment growth decline precipitously. While PWIs experienced a 40 percent growth in Black enrollment through the 1970s and 1980s, HBCUs reported an enrollment growth of less than half that amount.⁵ This growth was due for the most part to a 3 percent increase in the enrollment of White students in HBCUs since 1976.

As large numbers of African Americans gained access to predominantly White institutions, the legal battle over desegregation took a new turn. In 1972, Marco

DeFunis, a rejected law school candidate at the University of Washington, filed suit, claiming that he was the victim of affirmative action policies. His complaint, which focused upon the university practice of setting aside 20 percent of the places in its entering class for students of color, asserted that he, as a White person, had been discriminated against. Supreme Court Justice William O. Douglas voiced a vehement objection to the university's practice of setting aside places in the incoming class for minority students, arguing that this was in fact a quota system that limited the opportunities of White students.

In a similar case in 1974, Allan Bakke, after being rejected by the University of California medical school, filed suit that he too, as a White man, had been turned away based upon his race. In 1978 the U.S. Supreme Court ruled in his favor, striking down the university's affirmative action practices. In the aftermath of *DeFunis* and *Bakke*, affirmative action programs, which served as a key initiative for Black students seeking to enter predominantly White institutions, were in a more tenuous state than at any other time since their inception. A clear present-day manifestation of this can be found in Florida governor Jeb Bush's "One Florida" plan, introduced in 1999, which eliminated race and ethnicity as factors in university admissions and barred racial set-asides and quotas in contracting decisions—essentially ending affirmative action in state programs throughout Florida. And most recently, a majority of voters in Michigan backed a ballot initiative to ban racial and gender preferences at public colleges and state agencies—essentially overruling the Supreme Court's 2003 landmark affirmative action decision involving the University of Michigan.

With this philosophy as a framework, voices that cried for equal access to higher education were drowned out by other voices with a new vocabulary, introducing terms like "reverse racism" and "racial quotas." Very quickly, enrollment gains for Black students at PWIs, gains that had spiked in the 1970s, began to level out and decline.⁶ However, the shifting enrollment patterns had already taken their toll on historically Black colleges and universities. By 2001, only 13 percent of African American college students were enrolled at HBCUs, which awarded slightly less than 22 percent of the bachelor's degrees earned by African American students⁷—compared with 1976-1977 during which 35 percent of all bachelor's degrees awarded to Blacks were from HBCUs.

Financial Support

From the inception of historically Black colleges and universities, funding has been a key issue. Many of these institutions, including Cheyney University of Pennsylvania, Atlanta University, and Spelman College, were established by wealthy White philanthropic investors and organizations for the sole purpose of educating newly freed slaves. Others were developed and maintained due to the benevolence of Black philanthropists; among this group are Bethune-Cookman College, Talladega College, and Jackson State University. This generosity allowed many of these schools to cultivate beautiful campuses, acquire valuable literary collections, and secure accreditation. By the 1920's, however, many of these benefactors withdrew previously offered support, leading to the closing of almost 100 HBCUs throughout the country. The Great Depression in the 1930's provided yet another formidable obstacle to growth and development, with the existing colleges and universities suffering through diminishing tuition dollars and a dearth of private donor contributions. Those who survived this period depended heavily upon the selfless determination of faculty and staff, creatively cutting costs to stay afloat.

A big change occurred starting in 1958, when President Eisenhower signed the National Defense Education Act providing scholarships, grants, and loans for higher education in response to Cold War concerns. This, in turn, paved the way for the enactment of the landmark Higher Education Act of 1965, which explicitly addressed the concerns of burgeoning HBCUs. Specifically, Title III of the Act designated funds to "assist developing institutions [HBCUs] directly" while Title IV provided student financing through grants, student loans, and work study opportunities.

In 1972, Congress established the Basic Education Opportunity Grant (BEOG), one of five major types of assistance offered by the U.S. Department of Education. This grant program awarded need-based funding to students who were enrolled at least half time in an accredited college or university. The BEOG (which was later renamed the Federal Pell Grant) attempted to address racial inequality in higher education by providing funding in inverse relationship to one's ability to finance a college education.

This strategy was rooted in the recognition that there is a clear relationship between student enrollment and the provision of federal aid. For African American

students, this correlation is especially important. By the mid- to late 1970s, as the median income of Black families had “risen” to only about 60 percent of the average for White families, the availability of need-based funding was an essential component in the effort to meet the cost of higher education and level the playing field for African American students.

With the inauguration of President Ronald Reagan in 1980, however, the role of the federal government in facilitating the aspirations of students of color was noticeably reduced, as Pell Grants and other special compensatory programs aimed to recruit African American students to institutions of higher education were cut or altogether eliminated. This philosophical shift was specifically manifested in two major thrusts: the reduction of the federal role in financing education and the elimination of race as an identifiable characteristic in public policy decision-making.

Because the Pell Grant program targets a specialized group—poor and disenfranchised families—it was and is highly vulnerable to attacks and cuts. In 1981, President Reagan’s first proposal to Congress was to limit the amount of Pell Grants as part of a series of cuts that eventually reduced the Pell Grant fund by \$200 million. Although funding for Pell Grants did recover a bit in the late 1980s and 1990s, the increases in funding lagged behind inflation and rising tuition costs. According to data from the U.S. Department of Education, between 1975 and the turn of the century, the average cost of attending a four-year undergraduate institution rose from \$2,277 to \$11,227 per year. By 1995, the worth of the Pell Grant had decreased to about half of its original purchasing power.⁸ In 2000, George W. Bush proposed that he, upon entering office, would raise the maximum Pell Grant amount to just over \$5,000 for incoming freshmen. Unfortunately, that promise remains unfulfilled. For example, the 2004 Education Funding Bill limited the maximum amount for Pell Grants to more than \$1,000 per student *below* the amount promised by President Bush. Recent statistics from the U.S. Department of Education show that the maximum Pell Grant will only cover about 42 percent of the typical costs of attending a four-year institution.

With increasing costs and insufficient grants, many Black students, particularly those of low socioeconomic status, face a difficult choice: incur large debts or discontinue their enrollment in college. In a meta-analysis of 25 research

studies, researchers compiled a statistic known as the student price response coefficient (SPRC), which indicates the change in the college participation of 18-to-24 year-olds. It was determined that every \$100 increase in tuition results in a one percentage point decline in enrollment.⁹ This data may explain, at least in part, the extremely low graduation rates for African American students enrolled at predominantly White institutions. As a group, these students are particularly vulnerable to changes in the cost of tuition and the distribution of financial aid.

Increased costs and insufficient support have also taken their toll on historically Black colleges and universities, institutions that already had fewer resources than their predominantly white counterparts. Declining enrollments have culminated in a loss of tuition dollars, forcing many of these institutions to depend heavily upon state funding, a rather tenuous position at best. Sadly, additional support is not likely to be forthcoming. For every federal dollar that is provided to public HBCUs, states pay 50 cents, while PWIs receive five to seven dollars for each federal dollar.¹⁰ Moreover, recent data indicates that less than 2 percent of the more than \$140 billion in federal grants for science and engineering were awarded to HBCUs in the 1990s. Additionally, in 2001, historically Black colleges and universities (along with Indian tribal institutions) were removed from the list of institutions that the House Committee on Higher Education considered for additional government funding.

The disparity in support contributes to an abundance of problems that plague HBCUs and taint perceptions of their relevance and effectiveness in the twenty-first century. Due to funding difficulties, all but the wealthiest of historically Black colleges and universities have been forced to either reconstitute as more multiracial institutions, as was the case with both Maryland State College and Bluefield State College in West Virginia; cut vital educational programs and faculty, as was the case with Clark Atlanta University in 2003; or close their doors altogether, as was unfortunately the case with Bishop College in Dallas and was nearly the case with Fisk University. Further, according to data garnered by the National Association for Equal Opportunity in Higher Education, most HBCUs suffer from a “digital divide,” finding themselves ill equipped with respect to Internet access, computer equipment, technical training for faculty, and technological support. Challenges such as these, coupled with decreased public funding and increased operations costs, have placed the presidents of many HBCUs in an almost perpetual cycle of fundraising.

Critiques of HBCUs and Responses to Them

The fact that many historically Black colleges and universities receive inadequate resources and have very small endowments is scarcely a cry for their irrelevance and dissolution, but a testament to the viability of these institutions, which have been successful with so little for so long. Nevertheless, many among a conservative political leadership base have questioned the relevance of HBCUs for the twenty-first century. Those who do so launch attacks on the nature and mission of historically Black colleges and universities on a number of fronts, but the most vocal criticism of the twenty-first century HBCUs centers on a perceived lack of academic rigor. Critics of HBCUs point to an achievement gap between Black students who attend HBCUs and those who attend PWIs, specifically alluding to the underperformance of HBCU students with respect to undergraduate admissions tests (even after controlling for household income), SAT scores, and high school grade point average. Critics also assert that inadequate financial resources prevent HBCUs from offering effective instruction. Noting that the total instruction-related expenditures of HBCUs are much lower than those of PWIs, the critics argue that inadequate resources and poor facilities impede the efforts of HBCUs to prepare young minds to think and act critically in the twenty-first century.

These charges require careful consideration.

Concerning the lower average SAT scores among Black students attending HBCUs relative to their counterparts in PWIs, it should be noted that Black students who attend HBCUs are less likely to be the children of married parents who have themselves attained college degrees than are the children of Black families who attend predominantly White institutions. As such, they may be at a disadvantage in preparing for college. Nevertheless, recent studies suggest that students in Black colleges produce comparable academic outcomes with respect to writing ability and mathematical reasoning.¹¹ Other researchers have reported favorable scores among Blacks at HBCUs as compared with those who attend PWIs with respect to performance on standardized writing and science assessments.¹² Still other studies report significant cognitive gains and higher levels of academic engagement among Black students at HBCUs even when compared with predominantly White institutions. For example, a study by Wenglinsky (1996) examined five specific student outcomes: grade point average, leadership potential, educational aspirations, career aspirations and willingness to

participate in community service. The conclusion was that students in HBCUs were both more academically motivated with respect to their educational goals and more likely to achieve their professional aspirations than African American students at other institutions.¹³ Additionally, in a study of the academic skills of college freshmen at both predominantly White institutions and historically Black institutions, Pascarella et al. (1996) reported greater improvement among Black students at HBCUs in both writing and science reasoning abilities, as operationalized by scores on the *Collegiate Assessment of Academic Proficiency*, an instrument developed by the American College Testing Program.¹⁴

Still other researchers investigated the effectiveness of undergraduate programs of study for economics at historically Black institutions. A 2001 examination of the pre- and post-test scores of students in comparable Principles of Macroeconomics courses revealed that, while Black economics students at HBCUs began their program of study with significantly lower scores than their White counterparts at PWIs the two groups achieved similar post-test scores in this course.¹⁵

Viewed collectively, the studies cited above suggest that historically Black colleges and universities succeed in addressing any academic deficiencies in the students they admit. But it also should be noted that HBCUs attract exceptionally strong students as well as those who are academically challenged. For example, Florida A&M is consistently among the top recruiters of National Achievement Scholars, and Morehouse College produces many Rhodes scholars. North Carolina A&T attracts exceptional students with its excellent engineering program, and Howard University attracts them with its world-renowned law school.

Concerning the charge that predominantly White institutions have higher instruction-related expenditures than historically Black colleges and universities and so are better able to educate African Americans: the record tells a different story. Certainly administrators at HBCUs would like to have the financial resources that PWIs command; nevertheless, HBCUs consistently outperform PWIs in their retention and graduation rates for African American students.¹⁶ A 2004 Education Trust report revealed that only 39 percent of Black students who enroll in college finish their degree (as compared with 57 percent of White students). The rates are lower still at PWIs. Of the 772 four-year colleges and universities in the United States where at least 5 percent of the student body is

African American, 299 report a graduation rate that is under 30 percent for African American students; 164 report a rate that is under 20 percent; and 68 report a graduation rate that is under 10 percent.¹⁷ These graduation rates for African American students at PWIs are particularly troubling when contrasted with the much higher rates at HBCUs. Several well known Black institutions stand out among this group, notably Spelman College, which reported a graduation rate of 77 percent in 2005, and Morehouse College and Fisk University, each of which graduated 64 percent of its Black student body within six years of initial enrollment. Additionally, in a study of 41 historically Black colleges and universities, 26 reported an increase in their graduation rate between 1998 and 2005.¹⁸ This record of accomplishment makes clear that historically Black colleges and universities still serve a crucial role in providing African American students access to postsecondary education.

How are historically Black colleges and universities able to promote this high level of achievement? HBCUs strive to provide an affordable and supportive academic and social environment for a wide range of students. Students point to numerous mentoring programs, support from culturally-centered organizations and programs, and a higher percentage of African American faculty members than that of many predominantly White universities as variables that promote the satisfaction, development, and future success of HBCU students. A substantial body of research supports these observations.

In a key study of African American student engagement, Jacqueline Flemming compared Black students attending historically Black colleges or universities with their peers in comparable White institutions. Males and females were surveyed during their freshmen year in college and again in their senior year with respect to their academic confidence and career aspirations. Based upon the results of these surveys, she concluded that HBCUs were more effective than PWIs in promoting confidence and high aspirations; HBCUs also better prepared their students to compete in the professional world than did PWIs.¹⁹ Flemming also found a higher level of intellectual engagement among Black students attending HBCUs than among those attending PWIs, a finding that was later replicated in numerous Black colleges and universities.²⁰ In a study of academically talented postsecondary students enrolled in both HBCUs and PWIs, high achieving students in HBCUs reported a more positive self-image and adjusted better to college life than did their counterparts who attended PWIs.²¹ These reports stand

in stark contrast to findings which suggest that many Black students on the campuses of predominantly White institutions experience a disconnect between their professional aspirations and the opportunity to integrate themselves academically into the culture of the institution.²²

This is not surprising. In an examination of the degree to which African American students interact with members of the faculty both inside and outside of the classroom, Douglass Guiffrida (2005) concluded that Black students perceived other African American faculty as far more likely to provide them with personalized advising and active support; students also noted that African American faculty demonstrated a higher level of confidence in the students' abilities than did White faculty.²³ Further, Guiffrida found that African American student organizations provided a viable avenue for Black student collaboration and promoted academic persistence.²⁴ Conversely, other research efforts report that Black students on White college campuses often experience feelings of alienation and exclusion.²⁵ In an unpublished dissertation which examined differences in climate between an historically Black university and a predominantly White institution in Ohio, Helen Elaine Key writes that "students on the HBCU campus did indeed perceive their campus to be more nurturing, would attend their college again, considered that they had received a viable education due to the rigors of their academic programs and would remember their college years as the best time of their lives so far whereas African American students on the PWI campus, while acknowledging the awareness of the vast numbers of services, organizations, and programs available on their campus, were less involved in these social supportive services, were less prone to return to their university, would not remember their college experience favorably, did not have a support person, and took longer to complete their degree requirements."²⁶ Other researchers have reflected that HBCUs provide a more welcoming racial climate for Black students, a climate in which they experience a lower level of on-campus racial tension. Traditionally, these institutions have provided African American students with a strong academic foundation while sheltering these students from negative images of Blacks, instilling in their place a sense of pride in the Black culture. The need for such nurturing is as important today as ever, as African Americans continue to strive to overcome a preponderance of stereotypically negative depictions and expectations regarding the educational prowess of people of color.

Recommendations

HBCUs should command a greater share of resources than they currently receive. A call to arms must first go out to those who have benefited most directly from their existence: the alumni of historically Black colleges and universities. It is crucial that HBCUs foster a culture of giving among their graduates, insisting that they contribute to their alma mater as do the alumni of notable predominantly White institutions across the country. Unfortunately, endowments for HBCUs, which are extremely rare, are often a mere fraction of those bequeathed to predominantly White institutions. There are certainly exceptions: particularly noteworthy are Drs. William and Camille Cosby, who in 1980 bequeathed \$20 million to Spellman College in Atlanta; and Richard Hazel, formerly the president of PepsiCo, who in 2004 contributed \$3 million to the University of Maryland Eastern Shore (which is still the largest contribution ever made to a Black college or university in Maryland). While the generous contribution of individuals like the Cosbys and Hazel are certainly commendable, most HBCUs continue to wait for other individuals to step forward in a similar manner. Indeed, to date the total endowment for *all* historically Black colleges and Universities combined is less than \$2 billion dollars, a pitiful sum when compared to the endowment for Harvard University alone, which totals almost \$30 billion.

Certainly there are organizations that attempt to fill this void. For the past 60 years, the United Negro College Fund, the nation's largest and oldest organization providing assistance to African American students, has provided more than \$2 billion towards scholarships, internships, and facilities for students at its 39 member institutions. Similarly, the Thurgood Marshall Scholarship Fund, inaugurated in 1987 to honor the legacy of the famed Associate Justice of the Supreme Court, has awarded more than \$50 million in scholarship and funding to 47 historically Black colleges and universities. While this is cause for optimism, it is vital that efforts such as these are duplicated within the private sector of the African American community.

Contributions from the private sector notwithstanding, HBCUs must ultimately turn to the federal government for major financial support. Federal grant aid and Title III assistance should be increased substantially. Students who attend historically Black colleges and universities should be supported at a rate commensurate with the unwavering commitment these institutions have shown to their students. Specifically, they must be equipped with the means to provide

technological resources that will enable their students to access information and prepare to compete in a global economy. This initiative provides an opportunity for the current administration to make good on its promise to support the efforts of historically Black colleges and universities.

In 2000, the National Telecommunication and Information Administration coined the term “digital divide” to describe the discrepancy between those who have access to technology and those who do not.²⁷ According to a survey-based study, African Americans are far less likely to have access to the Internet than Whites in this country. This same report assessed the resources and connectivity of 74 historically Black colleges and universities and concluded that none of these HBCUs required students to own computers, less than 25 percent of their students actually owned computers, and only 3 percent of HBCUs provided funding for students to obtain computers. Furthermore, the authors of this report determined that HBCUs must “focus institutional resources to address 1) the improvement of high speed connectivity rates; 2) student-to-computer ownership ratios; 3) improvement of the strategic planning process; and 4) the incorporation of innovative technologies into campus networks.”²⁸

While a number of existing programs work to close the digital divide—among this group are the National Science Foundation and the Executive Leadership Council and Foundation, both of which work to sustain existing technology on the campuses of HBCUs—funding towards this end must become a priority. HBCUs should become full participants in the digital era to continue to attract quality students and to meet their academic needs. The federal government can facilitate this process by setting aside grant-based funding to enhance the availability of technological resources at these institutions. Specifically, this should entail funding the purchase of hardware for students and the provision of training to support its utilization by both students and faculty.

In a review of the availability and utilization of technological resources at Black colleges and universities, Daphne Ntiri comments that “those who cannot purchase a computer or pay for Internet access and those who attend schools that offer minimal education in computer skills are finding themselves on the less-advantaged side of the great prosperity divide.”²⁹ This is particularly troubling given that many students who attend HBCUs are first-generation college students who have had little or no prior opportunity to interact with key techno-

logical resources. To address this problem, some HBCUs, including Johnson C. Smith University and Morris Brown College, have recently required that incoming freshmen purchase personal computers. While this is certainly a reasonable requirement for students, it is a requirement that may add \$1,000 to the cost of attending college. The financial hardship this obligation will impose may be unrealistic for families of lower socioeconomic status, some of whom elect to attend an HBCU because of the comparably low tuition cost relative to that of many large, predominantly White institutions. Additionally, a recent study by the United States General Accounting Office concluded that less than half of HBCUs employed an adequate instructional technology support staff and that faculty development in the implementation of technological resources was often not provided. Further, while respondents ranked as high priorities technological goals such as improving Internet access and faculty training in the use of information technology, more than 80 percent indicated that these steps were hindered due to limited funding.³⁰

In *Serving the Nation: Opportunities and Challenges in the Use of Information-Serving Technology at Minority-Serving Colleges and Universities*, the authors assert that the underfunding of HBCUs renders the acquisition of vital but expensive technology nearly impossible. These resources are key if HBCU graduates are to enter the professional world on equal ground with their peers from predominantly White institutions. The report goes on to state that:

Many impressive accomplishments have been achieved by minority-serving institutions in the use of technology despite limited funds. . . . [A]s institutions that play a major role in the nation's emerging minority populations, HBCUs are integral to the country's potential and promise. That potential and promise can be fulfilled in part by making the needed investments now for the economic and social security of the nation over the long term.³¹

Allen and Jewell (2002) write that "the Black struggle for higher education is an apt metaphor for the larger Black struggles for citizenship, self-determination and personhood in this society," and those who fight these battles often find themselves "revisiting the same battlefields."³² As such, in the early twenty-first century, historically Black colleges and universities again finds themselves

pressed to defend their relevance as vital access points of higher education for African American students. Black colleges and universities have traditionally enrolled students who may have been shunned by other universities due to financial, social, or academic deficiencies. On threadbare budgets, these institutions continue to mold, nurture, and develop Black talent and leadership. The time has come for these institutions to receive the respect that they deserve, manifested in an unwavering financial commitment to their continued growth and development.

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Financial Aid as a Perceived Barrier to College for Latino Students

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Introduction

In 2002, the Tomas Rivera Policy Institute (TRPI) released a study that documented the lack of information about college admission among the Latino community.¹ Specifically, the study found that a majority of Latino parents were not familiar with college entrance requirements and college preparation in high school. This was particularly evident in first-generation immigrant, Spanish-speaking, and working-class parents. In the same report, we found that teachers and counselors had a potentially pivotal role in being the purveyors of college information. This report initiated a dialogue about the limitations in arguments, sometimes made by policymakers and educators, which place responsibility for disseminating college information primarily on parents. The report also illustrated how low college-enrollment rates among Latinos may be due to lack of information and not lack of education values, as some have argued in the past.²

Most recently, the Institute has engaged in additional studies that measure Latino parents' and youths' familiarity with financial aid information and their perceptions of access to financial aid. However, the results of these studies have not been widely disseminated and we wish to present some of the more salient findings of one particular study. In this article, we will use the results of a national survey of Latino parents and students to illustrate the lack of financial aid awareness among the Latino community and discuss the implications of this knowledge discrepancy on perceptions of college access. The findings presented in this article are consistent with other surveys published by TRPI³ where we have found that Latino parents and youth are not familiar with college admissions processes and that perceptions of college costs may be forcing some students to forgo a college education.

The study presented here was funded by the Sallie Mae Fund and is based on a national survey of 1,219 Latino parents and 1,210 Latino young adults living in seven large cities. The survey explored the population's knowledge of financial aid options, knowledge of sources of financial aid information, the timing and format of financial aid information delivery, and the extent to which financial aid was a factor in one's decision to attend college. We found that Latino parents and students lacked significant information about financial aid for college and often received information much too late to be able to consider attending college. Although both parents and students expected to receive such information from school personnel, it appears that school personnel were not necessarily an effective conduit for delivering financial aid information.

In addition to presenting the findings of the national survey of Latino parents and students, we will also discuss the policy implications of the results and offer practical recommendations that higher education institutions and policymakers can implement in their communities.

Existing Relevant Research

By most accounts, the burden of paying for higher education has shifted away from institutions and government agencies and towards families in the last two decades.⁴ Throughout this period, grants and government-subsidized aid have covered a decreasing proportion of students' college costs.⁵ Orfield (1992) and Callan (2000) argue that college financing reform has mostly helped middle-class families, leaving a college education out of reach for many working-class families. Oftentimes, the result is that students are forced to accept suboptimal college options to incur less high levels of debt. Additionally, there is evidence that families continue to increasingly rely on loans to finance higher education.⁶ This is an important observation because increased reliance on debt to finance an education presents increased college cost considerations for families and burdens students with more economic risk.⁷ Further, it is important to account for how personal, cultural, and social attitudes towards loan instruments may deter some families from consideration of incurring college costs.

Increased burden in financing a college education has an important influence on how Latino families in the United States, most of whom are working-class families,⁸ approach college-going decisions. Moreover, given the low post-secondary education attainment rate among Latinos,⁹ there is urgency in determin-

ing to what extent financial aid plays a role in determining if and where Latino students enroll in college. From existing research, it is known that class and social factors matter in determining the role that college costs play in decisions about college.¹⁰ In comparing students from different economic classes, Paulsen and St. John (2002) found that less affluent students are more sensitive to college costs. College costs also influenced college completion behavior. In Post's (1990) survey of one senior class in high school, he found that college costs largely determined college plans for children of Spanish-speaking parents. In this same study, he found that children of Spanish-speaking parents most frequently overestimated the costs of attending college. Findings such as these indicate a need for closer inspection to understand how Latino working-class families perceive college costs.

To date, most student-level financial aid research has relied on the National Postsecondary Student Aid Survey (NPSAS). However, 2000 was the last date this survey was conducted, and the survey focuses exclusively on students who are enrolled in college, limiting any inferences one can make about how financial aid influenced decisions to not enroll in college. The Education Resource Institute, Inc. (2005), recently commissioned a series of research reviews to determine "what is known about the impact of financial aid program design, operations, and marketing on the perceptions of lower-income and minority youth and their parents." One of the conclusions confirmed by ten leading education scholars was that there is not sufficient research to understand how Latino parents perceive college costs and financial aid instruments. Mundel and Coles (2004) conclude that research on college financing perceptions is in a "disappointing state."

Timely assessments of Latino parent and student perceptions of financial aid and college costs have never been conducted and are much needed to advance the educational aspirations of Latino families. In the survey we describe below, we consider how policy and higher education institutions can begin to address misperceptions about college accessibility among Latino youth and parents and potentially instill a sense of college opportunity among working-class families who may currently perceive a college education to be beyond their economic reach.

Sample and Analysis

The survey discussed in this article was administered in 2004 in seven cities with high concentrations of Latinos: Los Angeles, New York, Miami, Chicago, San Francisco, Houston, and Dallas. The sampling frame used in the survey was a targeted list of known Latino households in the seven selected cities. These households were randomly dialed and after determining interest and securing consent to participate in the study from the respondents, a 15-minute questionnaire was administered. The survey comprised approximately 35 close-ended questions. Survey interviews were conducted in Spanish, English, or both, depending on the respondents’ preference.

For the purpose of this study, respondents who had attended a college were categorized as college achievers, and parent respondents who had a child who had attended college were categorized as parents of college achievers. Student and parent respondents who had not attended college were grouped into a “college potential” category. College achievers were slightly overrepresented (40 percent) in the raw sample. Thus, the sample was weighted to reflect an accurate distribution of college achievers (28 percent) and non-college respondents (72 percent) in accordance with the 2000 U.S. Census.

In total, 1,210 Latino youth (18-24 years) and 1,219 Latino parents (over 18 years) were interviewed. The distribution of respondents reflects actual Latino population distribution among the seven metropolitan areas that were targeted (See Table 1). The margin of error for this survey is +/- 2 percent.

	Percentage Latino Distribution	Young Adults (18 - 24)	Parents
Los Angeles	38 %	458	477
New York	22 %	267	277
Miami	8 %	105	92
Chicago	9 %	111	102
San Francisco	8 %	93	103
Houston	8 %	96	94
Dallas	6 %	80	74
Total	100 %	1210	1219

Descriptive analysis and significance tests comparing college achievers and non-college respondents were completed to understand how financial aid may have influenced decisions to attend college. Additionally, descriptive statistics of the demographic characteristics of the respondents were gathered to understand how this sample is relevant to the predominant Latino student population.

Overall, the sample is fairly representative of Latino residents in the U.S. and reflects the characteristics of students underrepresented in higher education institutions. The majority of the youth respondents was of Mexican origin (57 percent), was born in the U.S. (57 percent), had parents who were foreign-born (74 percent), spoke English fluently (63 percent), and was or would have been first in the family to attend college (53 percent). The median household income among youth respondents was between \$25,000 and \$35,000. Sixty-eight percent of the youth respondents in our sample finished high school or its equivalent. This number is slightly higher than that reported in the general population, but is unlikely to bias the findings of this survey. To the contrary, the skew implies that the findings are even more relevant given that failure to graduate from high school did not present a barrier to college for this particular group of respondents.

Similar to the youth sample, the majority of the parent respondents was of Mexican origin (56 percent), had not finished high school (53 percent), and had children who had finished high school (70 percent). The median household income reported by the parent respondents was between \$25,000 and \$35,000. Unlike youth respondents, parent respondents were more likely to be foreign born (74 percent), although their children were more likely to be born in the United States (57 percent). The median age among parent respondents was 46 years old. Forty-two percent of the parent respondents spoke English fluently.

Key Findings

Value of a College Education

Latinos clearly place a high value on a college education. A large majority of youth respondents (87 percent) indicated that a college education is “very important” and an additional eleven percent indicated that it is “somewhat important.” Parent respondents were even more likely to value a college education, as 94 percent indicated that it is “very important.”

Sources of College Information

Parent and youth respondents were largely in agreement about the sources of information about going to college. Youth respondents indicated that the most frequent sources of information about college were school teachers and counselors (56 percent), followed by their parents (19 percent), and other family members or relatives (10 percent). Parents also indicated that school teachers and counselors (49 percent) were the primary source of information for their children, followed by themselves (26 percent), and other family members or relatives (9 percent).

Age at which Youth Received Information about College

Most youth participants (69 percent) indicated that they had first received information about going to college when they were younger than 15 years old. The importance of the age at which a person first learns about college is highlighted by the finding that most college achiever youth (82 percent) indicated having learned about college by age 16 or younger; only 75 percent of college potential youth indicated the same. Even more striking is the finding that 37 percent of college achiever youth indicated having learned about college by age ten, compared to only 25 percent of college potential youth.

Guidance in Educational Decision-Making

Most youth respondents indicated receiving at least some guidance in their educational decision-making by parents (76 percent) and teachers and counselors (80 percent). Parents were somewhat more likely to feel that they had provided guidance in their child's educational decisions, as 87 percent indicated providing at least some guidance, but they indicated similar perceptions about the level of guidance their child received from teachers and counselors. It is troublesome that a relatively large number—nearly one in five youth—indicated very little or no guidance at all from either parents or teachers and counselors. Nearly one in five parents also felt that their child received little or no guidance from teachers or counselors.

Importance of Parental College Experience

An important finding is that parent education level is directly related to the likelihood that a child will attend college; the higher the parent's level of education, the more likely the child was to go to college. The significance of this is highlighted by the fact that college achiever youth were more likely to indicate that

they received “a great deal” of guidance in their educational decisions from their parents than were college potential youth. Fifty-nine percent of the parents who indicated having graduated from college had a child who was a college achiever, compared to only 41 percent of parents who had not graduated from college.

Familiarity with College Financial Aid

In general, neither youth nor parent respondents felt knowledgeable about college financial aid, but parents were even less likely to feel knowledgeable. A large number of youth respondents indicated that they were either somewhat unfamiliar (18 percent) or not at all familiar (20 percent) with college financial aid. The sources of financial aid of which they did indicate awareness were scholarships (22 percent), grants (20 percent), and loans (11 percent), but thirty-eight percent were unable to name any sources of college financial aid. An even larger number of parent respondents (54 percent) indicated that they were either somewhat or not at all familiar with college financial aid, and 51 percent could not name a single source of college financial aid. Also troubling was the finding that more than one-half of both youth and parent respondents indicated either that a person had to be a U.S. citizen to be eligible for financial aid or that they did not know whether citizenship was a requirement.

Importance of College Financial Aid Information

The lack of awareness about financial aid among respondents can be partially explained by the startling finding that 51 percent of Latino youth and 71 percent of the parents of Latino youth indicated not receiving information or advice about college financial aid while the youth were enrolled in kindergarten through twelfth grade. It is important to note that most college achiever youth (59 percent) indicated having received financial aid information during kindergarten through twelfth-grade enrollment; in comparison, only 41 percent of college potential youth indicated having received information during the same period.

Sources of Information about College Financial Aid

School teachers and counselors were by far the most common sources of information or advice about college financial aid compared to other sources, according to both youth respondents (65 percent) and parent respondents (42 percent). However, indications of preferred sources by youth and parents were more varied. Youth respondents’ preferred sources for providing more information were school teachers and counselors (23 percent), the Internet (16 percent),

college financial aid officers (14 percent), and college representatives or college campus visits (13 percent). Parents' preferred sources were school teachers and counselors (27 percent), college financial aid officers (13 percent), college representatives or college campus visits (11 percent), and the Internet (10 percent).

Learning How to Pay for College

Both parent respondents (39 percent) and youth respondents (37 percent) generally preferred talking to a knowledgeable person as the most useful means of learning how to pay for college. However, youth respondents also indicated a preference for attending workshops or conferences (21 percent), reading brochures or pamphlets (17 percent), or using the Internet (15 percent); similarly, parents preferred attending workshops or conferences (19 percent), reading brochures and pamphlets (17 percent), or using the Internet (12 percent). Not surprisingly, the preferred language format in which to receive information about paying for college was quite different for youth and parents. The majority of youth respondents indicated a preference for receiving information in English (54 percent), but many also preferred both English and Spanish (29 percent), or Spanish only (17 percent). Parent respondents, on the other hand, primarily preferred to receive information in Spanish (54 percent), with lower percentages preferring English (27 percent) or both English and Spanish (19 percent).

Conclusion and Policy Implications

Nearly all national population forecasts have predicted the Latino population will continue to increase at a faster pace than other ethnic groups and will not be concentrated in the "traditional" Southwest. The increasing demographic concentration and wider geographic dispersion of this group garners scrutiny from policymakers, businesses, and politicians, all seeking how best to incorporate Latinos into their social, marketing, and civil participation programs. A clear finding in this scrutiny has been the relatively low levels of formal education that characterize Latinos, in general. This characteristic has been described in a myriad of ways, and multiple explanations are often used to explicate what is a clear liability for Latinos seeking social and economic mobility. Their initial low levels of education among adult immigrants, low wages of entry-level positions in the unskilled labor sector, and access to inferior schools upon arrival are some of the conditions that influence the low educational attainment found among Latinos.

Recent research has illuminated the existing education conditions faced by the children of immigrants, and from this research intervention recommendations have ensued.¹¹ A clear and resounding remedy to the low educational status of Latinos is access to higher education. Our surveys and other large-scale studies attest that Latino parents and students value education as a vehicle to social mobility. In today's U.S. economy, a college education is imperative for social mobility. Fewer and fewer sustainable jobs can be obtained without college education. Thus, the low educational status of Latinos, coupled with their increasing presence, presents a national challenge to provide all residents with equitable education in order to maintain the nation's economic status.

There are many identifiable barriers to college that are faced by working-class Latinos: access to college preparatory coursework, access to schools that nurture college-bound students, immigration status, and the economic realities of living in a low-income household. Financial aid is not the only barrier facing Latinos in their quest for higher education; rather, it is only one factor that shapes their decisions about college. Yet, its significance in college-going decisions must not be underestimated.

In the findings presented in this article, it is clear that there is a dearth of financial aid information among Latino parents and students, and a lack of exposure to financial aid opportunities may enhance the perception among many that a college education is an unreachable luxury. Familiarity with financial aid alone will not cause higher college enrollment rates; rather, familiarity with financial aid opportunities allows students to plan a clear pathway to college and should complement other interventions that encourage academic achievement and career planning. To conclude, we describe three policy recommendations that can be implemented in various communities and higher education institutions.

1) Disseminate, Disseminate, Disseminate

The results of this survey strongly suggest that financial aid information is lacking in the Latino community. It appears that even basic, easy-to-communicate information about the variety of financial aid instruments is not as available as it needs to be. A targeted effort should be made to address this challenge by making financial aid information much more broadly available to Latino parents and students, with counselors and teachers taking the lead as disseminators.

2) Integrate Information in Schooling Practices Early

It is important that information about college, and how to pay for it, should reach target populations as early as possible in school. Information about college going and college life should be incorporated into middle school and high school classes as much as possible. We would argue that a financial aid workshop in the junior year of high school is ineffective for college-planning purposes. Students and parents should begin to receive financial aid information at least in middle school so that college plans can be shaped early by accurate information. Moreover, financial aid information should not be delivered piecemeal in workshops for selected students or only when the students solicit it from the counselors or teachers. Financial aid information should be integrated into the everyday practices and standards of the curriculum. For example, a class dealing with economic issues can discuss college planning as part of the lesson; many other examples can be envisioned. Classroom discussion can fill a significant gap in the experience of students from homes where there is no consistent college planning. In-class conversations about college are useful for all students and vital for students from households where neither parent went to college.

3) Increase Guidance to College Applicants and Their Parents

Most institutional efforts to disseminate financial aid information while students are in middle school or high school are directed to parents rather than students. Nevertheless, our survey indicates that many parents still lack basic information about financial aid instruments. This presents a challenge that continues even after students have been accepted to college, as students and their parents then must make decisions about how to finance a college education. Although parents may be offering encouragement and emotional support for the prospective college student, it is important to recognize that often the student may be navigating the college financial aid process on his or her own. Thus, it is important to target assistance and communication to the entire family, not just the parents, and college representatives must make a concerted effort to guide first-generation students through the financial aid application process. One-on-one student guidance and targeted family workshops should be considered by higher education institutions when recruiting working-class Latino students.

The recommendations we propose here should be integrated into the school culture so that dissemination of college and financial aid information and college guidance become part of daily schooling practices, along with standardized

test preparation and completion of class requirements for graduation. Band-Aid approaches in the form of programmatic additions to the school curriculum are costly and may not reach the majority of students. On the other hand, an initial investment in school leadership training and a shift in organizational college-going expectations may have broader impact for a longer term.

ENDNOTES

¹ Tornatsky, et al., 2002.

² Valencia and Solorzano, 1997; Valencia and Black, 2002.

³ Tornatsky, et al., 2002; Zarate and Pachon, 2006.

⁴ Callan, 2000; Dowd, 2006; Orfield, 1992.

⁵ Callan, 2000; Dowd, 2006; Gladieux and Perna, 2005.

⁶ Dowd, 2006; Gladieux and Perna, 2005.

⁷ Perna, 2006.

⁸ Kochhar, 2005.

⁹ Solorzano, Villalpando, and Oseguera, 2005; Pachon, Tornatzky, and Torres, 2003.

¹⁰ Paulsen and St. John, 2002; Post, 1990.

¹¹ Portes and Rumbaut, 2001; Stanton-Salazar, 2001; Zarate and Pachon, 2006.

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The Internet and College Access: Challenges for Low-Income Students

KRISTAN M. VENEGAS

The Internet has generally been viewed as a means for creating “digital opportunity” for America’s students.¹ Students across the K-16 continuum are using the Internet to enhance their learning and educational prospects. In the early 1990s, it became clear that incorporating computer and Internet use into classroom learning and the daily lives of children in general would be essential to their growth as citizens of the world. At that time, Internet connections were available in only 35 percent of schools; less than 15 percent of households had computer modems. Since then, the increase in access to the Internet in schools has been significant. In 2003:

- 93 percent of public schools offered Internet-connected computers in at least one instructional room; and,
- 90 percent of students had opportunities to use a computer in school.

Similar increases in computer and Internet access have been reported at home as well. In 1994, only 36 percent of households with children, ages 7 to 17, had Internet-enabled computers. By 2003, 77 percent of such households were computer-enabled, with 68 percent of children from the ages of 7 to 17 living in households with Internet enabled computers. After reviewing these positive changes, the reader may be wondering, with Internet access available to students at school and at home, how there can be Internet-related issues in accessing postsecondary education. This article answers that question in a few ways. First, it presents a statistical picture comparing computer and Internet access for low-income students and students of color—the populations that are least represented in higher education—to that of high-income students. These comparisons are particularly important in light of the fact that a low-achieving, high-income student is more likely to go to college than a high-achieving low-income student.² As this article will show, low-income students are less likely to

have access to the Internet than their higher income counterparts. With Internet access becoming a necessary tool for college admission and financial aid applications, this disparity in access is becoming increasingly disadvantageous for low-income students. Second, using qualitative research, the article will provide case studies that share how low-income, urban high school seniors experience the Internet as part of the college selection, application, admission, and financial aid process. These case studies will reveal some of the difficulties that low-income students encounter, thus shedding light on significant problems that have been insufficiently explored in previous research on how college applicants use the Internet.³ Finally, the article recommends strategies for improving college access via the Internet. Before we explore these topics in detail, let us consider how and why students use the Internet as part of the college application process.

Establishing the Importance of Internet Access for College and Financial Aid Applications

College-bound students use the Internet to engage in any number of college application tasks. High school sophomores, juniors, and seniors are directed to the College Board and American College Test websites to sign up for PSAT, SAT, ACT, and Advanced Placement tests. Students “virtually visit” college websites and increasingly make decisions about institutional fit via the web. They may also go online to request more information about the college in which they are most interested, or participate in a live web chat with current students at that institution. In their final year of high school, students will most likely be required to apply for college admission via the Internet. Students seeking financial aid and scholarships may register for any number of scholarship clearinghouse services online. These students may also apply for federal and, in some cases, state financial aid as part of a multi-step online process. In addition, it is becoming commonplace for students to learn of their college acceptance via the web. All four-year public institutions in California, for example, ask that students retrieve their college admission decision by visiting a password-protected notification website. Upon receiving acceptances, they will be directed to return to the Internet to learn more about their housing assignments and financial aid offers. Later, students may use the Internet to register for classes. Students and college counselors alike realize that the Internet is becoming an indispensable means of communication for college admission and access.

What does this mean for schools that do not have adequate computing services, and what happens to the students who attend these campuses? Recently, as part of a research study on financial aid and college-going, I was able to compare college counseling services at two private college preparatory schools to those at two public magnet college preparatory schools in Southern California.⁴ Admittedly, the comparisons between these two schools may seem “too perfect.” Of course there will be differences between public and private high schools’ abilities to provide student services, given that private schools may have more dollars per pupil to spend and can create their advising services to meet the unique mission of their institutions. Nevertheless, all high schools, private and public, are fundamentally equivalent in that they recognize that one aspect of their mission is to prepare students for college. Further, students must academically qualify for admission, prepare postsecondary plans, and show evidence of parental support. Both the private and magnet schools require that students and parents sign an academic commitment contract. However, while these schools were comparable in size and institutional mission, the college advising services were vastly different. The following data highlights these differences. The research protocol for the study required that I meet with the college counselors and tour the college advising facilities at each school site. As expected, the college advising facilities at the public schools were paltry in comparison to those at the private schools. At one public school, computers were outdated, linked to a printer that rarely worked, and blocked students from accessing their free, Internet-based email accounts. There were three of these computers to serve a student population of 1,500. At one of the private schools, there were numerous computer banks providing Internet connections to students throughout campus, as well as functioning printers and college counselors to provide computer assistance. When speaking about these resources, the counselor at this private school explained that the school views them as essential for college planning and preparation:

At this school, using the Internet for college choice, admission, financial aid, and enrollment is just a given. We expect our students to use the Internet to be fully aware of their options. In fact, last year, we instituted an individual college planning web page for each student, and we have had our parent college planning website going for a while. If there is a school that I really want a student to see, I can just add a new link to their personal page.

In this college counselor's view, the college choice, admission, financial aid, and enrollment process was tightly coupled to the whole experience of going to college. Counselors at the public schools had fewer resources. One public school counselor described her Internet capabilities in the following manner:

My idea of using the Internet for college-related activities is just to find ways to make sure the four computers in our work area are running. I haven't been trained on a lot of this stuff, so to me, keeping them going has to be enough.

Unfortunately, low-income students of color were majority populations at both public schools, while middle- to upper-income White and Asian students comprised the majority populations at the private schools. While these student populations experience different schooling and preparatory environments, they are competing for admission and financial aid from the same postsecondary institutions.

Colleges and universities have continued to turn their attention to the Internet as a marketing tool for admission and a portal for students to navigate financial aid, housing, and registration processes.⁵ The advantages of real-time information, expedited admission, financial aid, and housing information via the web are many. Students and parents are able to access college websites from the convenience of home to receive important updates about their individual college admission and enrollment process.⁶ While these services are terrific for many of the affluent well-qualified students they hope to attract, complicated websites that require high speed Internet connections add another barrier to access for student populations that have been historically underrepresented in postsecondary education.

Past research suggests that low-income students' transition to online processing has been slow, cumbersome, and in many cases, acts as a deterrent for low-income students with little access to Internet technologies.⁷ In fact, some advocates for low-income students and students of color are concerned about the potential for Internet resources to become "engines of inequality" for those student populations.⁸ Increasing the number of computers in low-income schools is not a guarantee of increased computer use⁹, especially in schools where students are not allowed to use the computers or students and school

staff are not trained. Even though there is evidence of an increase in access to web-linked computers in low-income schools, quantitative and qualitative problems persist.¹⁰

**Access to the Internet in Schools, Home and Community:
A Statistical Perspective**

In the opening section of this article, statistics about the increase of computer access in schools and homes were presented as a means of demonstrating the enormous change in digital opportunity for America’s youth. A closer consideration of this “good news”—focusing on computer and Internet access for low-income students and students of color—tells a much different story. Table 1 offers a summary of computer and Internet access for students living in households with incomes of \$15,000 or less, versus students living in households with incomes of \$75,000 or more.

TABLE 1. Computer and Internet Access: Differences by Income

Income level	Computer at home	Internet access at home	Broadband at home
Above \$75,000	96 percent	93 percent	51 percent
Below \$15,000	45 percent	29 percent	7 percent

SOURCES: National Center for Education Statistics, *Internet Access in U.S. Public Schools and Classrooms: 1994- 2003*. Washington, DC: U.S. Department of Education (2005); U.S. Bureau of the Census, *Current Population Survey*, (September 2004).

The data presented above highlights how differences in income correlate with great disparities in access to computers at home. Less than 50 percent of low-income students have a computer available to them at home to complete school assignments, much less to access the Internet. There are even greater gaps in access to the Internet. Less than 30 percent of low-income students have Internet access at home and only 7 percent have a high speed Internet connection. There are also apparent gaps in access when comparing home resources available to Asian, Black, Latino, Native American, and White students. Table 2 reflects these inequalities.

TABLE 2. Computer and Internet Access: Differences by Race/Ethnicity

Race/ethnicity	Computer at home	Internet access at home	Broadband at home
Asian	86 percent	75 percent	33 percent
Black	56 percent	43 percent	14 percent
Latino	58 percent	44 percent	14 percent
Native American	58 percent	41 percent	13 percent
White	87 percent	80 percent	32 percent

SOURCES: National Center for Education Statistics, *Internet Access in U.S. Public Schools and Classrooms: 1994- 2003*. Washington, DC: U.S. Department of Education (2005); U.S. Bureau of the Census, *Current Population Survey* (September 2004).

The data presented in Table 2 reveals the chasm of difference in access to computers at home among different race/ethnicity categories. There is on average a 30 percent difference in computer ownership between Asian and White students and other racial/ethnic groups. The disproportion grows to an almost 40 percent difference when comparing home access to the Internet. Though no group has more than 33 percent of its population with broadband access at home, Asian and White homes are still more likely to have this service than all other homes.

The data displayed in this section reveals a significant divergence in access to the Internet when viewing usage by income and access at home. Upper-income White and Asian children between the ages of 7 and 17—the students most likely to go to college—benefit most from enhanced college admission and financial aid services offered online. These students use high- speed Internet connections in their homes to access the information they need. This is an interesting result considering that *all* students are expected to use the Internet as a means of engaging in the college application process despite any barriers they may face in accessing the Internet. How do low-income students and students of color navigate the college-going and financial aid process online? The qualitative data in the next section of this text sheds some light on this issue.

Access to the Internet in Schools, Home, and Community: What the Students Say

Despite immense challenges, there are motivated low-income students and students of color who are able to effectively navigate the college and financial aid

process and enroll in four-year colleges and universities. The following three case studies provide a snap-shot of the types of roadblocks that three college bound, low-income students of color faced while navigating the college and financial aid processes online. The quotations presented here are drawn from interviews and in-depth case studies of low-income twelfth grade Latino and Black students who participated in one of three recent studies on college going and financial aid in urban Southern California.¹¹ Each participant in this study had plans to attend a four-year institution and apply for state, federal, and private financial aid. Some of their stories are shared below, using pseudonyms to maintain confidentiality.

Yvette and her twin brother, Jaime, attended a low-income school that served mainly Latino and Southeast Asian immigrants just southeast of a large urban city. She had completed six Advanced Placement courses and maintained a grade point average of 3.7. In the fall of her senior year, she applied to four University of California campuses. These applications were submitted online:

It was a little harder at the beginning because I had to set up a password and then fill out all of the specific information about my transcript. I was almost finished when I had to give up my turn at the computer to the next person. There was a problem with saving my work and so I had to do it all over again. That would happen to me a lot, the running out of time part, I mean.

When asked to explain why she would often “run out of time,” Yvette explained her school’s computer access policy:

We can only use the computers for college-related things when the counselor is in the office. We only have one guy for the whole district, so part of Tuesday and part of Wednesday are our days to get in to use the computer. When we are close to deadlines, sometimes people stand in line for so long to apply [for college admission or financial aid] that they give up.

When asked about using the computer at home, this young Latina offered a response that was consistent with the statistics presented here: “We have a computer but it doesn’t have the Internet. We are going to get it, but only if Jaime and I get into college. We’ll get jobs and buy it for the house.”

Just a few miles away, at another high school with a low-income primarily Black and Latino student population, Michelle, the senior class president and a young, self-described “African American scholar,” explained her strategy to access the Internet for the college admission and financial aid process:

Since I am senior class president, I get to have a service period where I can hang out in the office or the student activities room. There are computers in there so I try to do my applications there. On a good day, I will get a half an hour to look at things, or try to fill things out. That means that I only do bits and pieces, but I get it done. I make my deadlines, so far I have.

On the surface, this is a good idea. Michelle’s behavior is particularly resourceful considering that her college center is closed during morning and lunch breaks because the college counselor is responsible for yard duty during these times and responsible for the safety of college center computers at all times (a common practice at many of the schools in this district). Michelle and her classmates’ only times to use the school computer would be before or after school and at the discretion of the college counselor. While this plan may seem like a good one to meet her immediate needs, there are potentially detrimental effects for her college acceptance options. Because she is taking two “service-related” courses, she is only taking the minimum senior year requirements to graduate from high school:

Yes, I had to make choices. Really, my heavy academic courses are English, Government, and Environmental Sciences. Those are my college preparation classes. But I needed to make sure that I would have access to a computer and a printer to get this done. I have a friend at [a four-year institution] right now, and she barely got there because she had problems with meeting deadlines because she turned in most of her requirements on paper. I didn’t want that to happen to me. I will not be able to apply to [a top 50 four-year university] after all, but I know I will still be able to get into a good school.

Michelle’s tactical approach may enable her to attend college, but it did negatively affect the range of colleges to which she applied and, thus, her educational opportunity. Because she had to choose between taking college-prep classes

and allowing time to use the computer at school, she could not take some of the classes that would have improved her chances for acceptance at top universities. Her counterparts with home computer access who attend schools with more readily accessible computers did not have to make such choices.

Compared to Michelle and Yvette, Bradley had fewer college options. With a 3.0 grade point average, he shared that he knew he was barely eligible for admission to a California public institution “without having to take the SAT.” Bradley was not as trusting of the college admission and financial aid process as Yvette and Michelle were, so he was a late-comer to using the Internet for college access and admission purposes:

I didn’t apply for any of my colleges online. At that time, I wasn’t sure how to do it and I didn’t know who to ask, so I just did it on paper and then made a copy. But then I got a post-card from the school saying that I had to submit information about me online, so I had to figure it out.

In this case, Bradley’s choice to complete his college admission process on paper was taken away by a school policy that required him to submit additional information via the Internet. Because Bradley’s family has no computer at home, Bradley needed to either use computers at school or find another means of computer access:

I can’t use the computer at the school because I work right after school and it is usually closed during [break] and part of lunch—that wouldn’t be enough time anyway. So a couple of times, I went to an Internet café place and then another time I went to my friend’s house. The part that makes it tough though is that I don’t always have a place to check my email.

The inability to check email on a regular basis was a common problem for students in similar socioeconomic and schooling situations. Although Bradley was able to find computer resources to meet main deadlines, he was unable to access resources on a regular basis. As a result, he almost lost out on financial aid: I didn’t check my email for like a month and there were four emails reminding me to check [my four-year institution’s] web portal system. So because of that, I almost missed out on getting financial aid. I needed to submit my dad’s tax returns and I didn’t know it until really late.

Although Bradley did a good job of making sure that he met key deadlines, his lack of knowledge about the importance of the Internet in his college admission and financial aid process almost cost him a spot in the class of 2009 in his school of choice. Though he gained admission, he would never have been able to afford the cost of attending a four-year institution without financial aid.

The examples presented in this section detail the difficulties of engaging in Internet-based college and financial aid application processes when students do not have consistent computer access at school or at home. For the students who participated in these research projects, it also seemed that even in cases when computers were available, informed and consistent support from college counselors or others was needed but unavailable. Regardless of these extant adversities, all students are compelled to use the Internet as a means of engaging in the college and financial aid application process regardless of any obstacles they may face.

Conclusion

Based on the statistical data presented here, low-income students and Latino, Black, and Native American students have much less access to the Internet than their upper-income, White, or Asian counterparts. A school system may claim that 100 percent of K-12 institutions offer computer access because they have computers on campus, but the experiences shown here indicate that these machines are not well maintained or readily available. Clearly, colleges and universities cannot and will not wait, nor will financial aid systems put technological advances on hold while our neediest and most underserved students access college. In what follows, I offer five interrelated recommendations for how we might address the concomitant issues that low-income students and students of color face while using the Internet to access college admission and financial aid resources.

First, students need to have a clear understanding of the timing and process of college admission and financial aid acquisition from beginning to end.

Completing an application for admission is just the first step in the process of applying for college, just as completing a financial aid application is simply one of the “starting point” activities in the process of acquiring the funds for college, so students should not be led to believe that completing applications is an ending rather than a beginning. Instead, counselors should make sure that students

understand what tasks are required—and what computer resources should be used to complete these tasks—at every stage of the application process. Students need to be encouraged to use the Internet to obtain information about colleges and financial aid, to begin the application process online instead of filing paper applications, and to use email and college Internet resources to stay abreast of where they stand in the application process. Particularly for students who are relatively unknowledgeable about the college application process and relatively inexperienced using computers, assistance from trained counselors may be required at every stage of the process.

Second, college counselors should devote all of their time to counseling instead of being burdened with additional responsibilities. Requiring college counselors to take on other responsibilities prevents them from providing the services that they were hired to provide to the college-going students in their schools. Also, high school administrators should support college counselors in their training goals by allowing release time and funding to attend college and financial aid information sessions led by groups such as the National Association of Student Financial Aid Advisors and the National College Access Network.

A third recommendation, which is closely related to the one above, is that students, parents, and counselors should be provided specific training for using web-based financial aid sites. As more and more colleges and universities move to web-based financial aid processes¹², all college applicants, and also the parents and counselors who support them, need to learn how to use online resources at every stage of the application process. While some affluent students may already possess this knowledge, training is necessary for most low-income students and anyone who assists them in the application process. This training should include the actual use of a computer with live Internet access. And the training should be provided early in the process: the day before a priority application deadline should not be the first time that students, parents, or counselors see an application website. Such suggestions are obvious, and yet, they should not be made without also understanding that these changes will only become feasible when schools acquire more and better technology and personnel.

Fourth, colleges and universities should assume more responsibility for providing the training and resources that low-income students need for better access to higher education. Too often, the responsibility for providing Internet

access and training is placed solely on America's high schools. However, some of these schools cannot keep pace with the technology demands that are posed by higher education's increased reliance on online communication. Colleges and universities, either working alone or in collaboration with high schools, can provide training that will improve low-income students' access to higher education. For example, a college might sponsor a financial aid application event on a Saturday afternoon at a local low-income high school or community center. The resources provided at this event could include trained financial aid counselors and temporary banks of web-enabled laptops and printers to be used during the session. A similar approach could be used for a college application night. Either event could be organized by one institution or a group of institutions who recruit and enroll students in that particular region.

Fifth, more nationally based research with up-to-date surveys on computer use in and out of school should be developed. To be sure, useful research related to low-income youth and Internet use does exist.¹³ Through this research, we are beginning to understand how this student population uses computers and the Internet to enhance its social and educational experiences. However, there remains a need for a study that considers how students use the Internet to access college and financial aid information. Also, research still has not captured the differences in support and training that further perpetuate a digital divide. Neither of the main research reports on use of the Internet cited here¹⁴ focuses on college-related tasks. This research and knowledge gap can be closed with research that includes an emphasis on college-going processes. Quite often, I observed empty computer labs in one area of school and broken, inaccessible computers in the college counseling area. Quantitative and action-oriented research that traces students' use of the Internet for college and financial aid information over time can illuminate when, how, and why students choose to use the web for these purposes. The timing and frequency of students' access to the Internet for financial aid purposes can yield different levels of competency and different opportunities for aid.

One final possibility for future research is a close examination of students' use of search engines and sites that provide resources for scholarships and other forms of financial aid. A study that traces the individual experiences of students who actively utilize these sites might create a stronger picture of how these sites have influenced and can continue to impact students' financial aid options. Such in-

vestigation can be carried out at the college and university level in collaboration with students, parents, and staff in secondary schools.

Research shows that over the past decade, there have been significant increases in access to the Internet for all students, regardless of income.¹⁵ More students and families own home computers than ever before, and more students and families are Internet connected as well. On the surface, the Internet access picture looks good and is only getting better. Nevertheless, a digital divide does continue to exist. There are divisions based on race, socioeconomic status, and educational levels. Low-income students attend schools in which their opportunities to use the Internet for college-related activities are minimally supported, or, in some cases, stymied. The need to use the Internet for college-related tasks will not subside. More postsecondary institutions will rely on the Internet as a form of communication, recruitment, and retention. In some cases, secondary schools are able to keep up with the ever-changing advances in technology, admissions, and financial aid. In other instances, some schools fall woefully behind. Rather than focusing primarily on the high school as the site of a solution, collaborative efforts between high schools, colleges, and state, local, and federal college-related agencies and organizations may provide a better answer. Pooling resources to accommodate for disparities between low-income high schools and their high-income counterparts may lead to increased college opportunity for our nation's neediest students.

ENDNOTES

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American Academic

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